



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To: Interested Parties

Date: June 18, 2015

From: Matthew Stuckey, Chief
Permits Branch
Office of Air Quality

Source Name: IPL – Petersburg Generating Station

Permit Level: Significant Permit Modification

Permit Number: 125-34687-00002

Source Location: 6925 N State Road 57, Petersburg, Indiana

Type of Action Taken: Modification at an existing source
Revisions to permit requirements

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>
To view the document, select Search option 3, then enter permit 34687.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

(continues on next page)

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Jeffrey A. Harter
IPL - Petersburg Generating Station
6925 North State Road 57
Petersburg, IN 47567

June 18, 2015

Re: T125-34687-00002
Significant Permit Modification to
Part 70 Renewal No.: T125-30045-00002

Dear Mr. Harter:

Indianapolis Power & Light (IPL) - Petersburg Generating Station was issued a Part 70 Operating Permit Renewal No. T125-30045-00002 on July 18, 2013 for a stationary electric power generating plant located at 6925 North State Road 57, Petersburg, Indiana 47567. An application requesting changes to this permit was received on July 1, 2014. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

Please find attached the entire Part 70 Operating Permit as modified, including the following new attachments:

- Attachment G: NESHAP 40 CFR 63, Subpart UUUUU, Coal- and Oil-Fired Electric Utility Steam Generating Units
- Attachment H: IPL Petersburg - EPA Approval of Alternate Compliance

The permit references the below listed attachments. Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this modification:

- Attachment A: Extension of Time Request
- Attachment B: Fugitive Dust Control Plan
- Attachment C: Acid Rain Permit
- Attachment D: NSPS 40 CFR Part 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators
- Attachment E: NSPS 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants
- Attachment F: NESHAP 40 CFR 63, Subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines

Previously issued approvals for this source containing these attachments are available on the Internet at: <http://www.in.gov/ai/appfiles/ideM-caats/>.

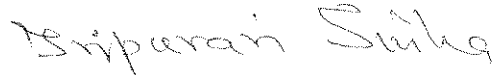
Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/ideM-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/ideM/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/ideM/6900.htm>.



This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.
If you have any questions on this matter, please contact Daniel W Pell, of my staff, at 317-234-8532 or 1-800-451-6027, and ask for extension 4-8532.

Sincerely,



Tripurari P. Sinha, Ph. D,
Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit, Technical Support Document

TS/dwp

cc: File - Pike County
Pike County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Southwest Regional Office



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Part 70 Operating Permit Renewal

OFFICE OF AIR QUALITY

**Indianapolis Power & Light Company - Petersburg Generating Station
6925 N. State Road 57
Petersburg, Indiana 47567**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T125-30045-00002	
Issued by/Original Signed by: Tripurari P. Sinha, Ph. D., Section Chief Permits Branch, Office of Air Quality	Issuance Date: July 18, 2013 Expiration Date: July 18, 2018

First Significant Permit Modification No. T125-33773-00002, issued January 10, 2014.

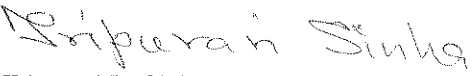
Second Significant Permit Modification No.: T125-34687-00002	
Issued by:  Tripurari P. Sinha, Ph. D., Section Chief, Permits Branch Office of Air Quality	Issuance Date: June 18, 2015 Expiration Date: July 18, 2018

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- G.8 Liability [326 IAC 24-1-4(f)] [326 IAC 24-2-4(f)] [326 IAC 24-3-4(f)] [40 CFR 97.106(f)] [40 CFR 97.206(f)] [40 CFR 97.306(f)]
- G.9 Effect on Other Authorities [326 IAC 24-1-4(g)] [326 IAC 24-2-4(g)] [326 IAC 24-3-4(g)] [40 CFR 97.106(g)] [40 CFR 97.206(g)] [40 CFR 97.306(g)]
- G.10 CAIR Designated Representative and Alternate CAIR Designated Representative [326 IAC 24-1-6] [326 IAC 24-2-6] [326 IAC 24-3-6] [40 CFR 97, Subpart BB] [40 CFR 97, Subpart BBB] [40 CFR 97, Subpart BBBB]

Certification
Emergency Occurrence Report
Quarterly Deviation and Compliance Monitoring Report

Attachment A: Extension of Time Request

Attachment B: Fugitive Dust Control Plan

Attachment C: Acid Rain Permit

Attachment D: NSPS 40 CFR Part 60, Subpart D

Attachment E: NSPS 40 CFR Part 60, Subpart OOO

Attachment F: NESHAP 40 CFR 63, Subpart ZZZZ

Attachment G: NESHAP 40 CFR 63, Subpart UUUUU

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary electric utility generating station.

Source Address:	6925 N. State Road 57, Petersburg, Indiana 47567
General Source Phone Number:	(812) 354-8801
SIC Code:	4911
County Location:	Pike (Washington Township)
Source Location Status:	Attainment for PM _{2.5} standard Non-attainment for SO ₂ in Washington Township Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source Under Emission Offset Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(14)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator as control for PM emissions; FGD scrubber (installed in 1996) as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 1995) for NO_x reduction; and exhausts to stack 1-1(s) or bypass stack 1-1(b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator or a baghouse (approved in 2015 for construction), as control for PM emissions; FGD scrubber (installed in 1996), as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction; selective catalytic reduction (installed in 2004); and low NO_x burner as control for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator or a baghouse, (approved in 2015 for construction) as control for PM emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004) as control for NO_x emissions; FGD scrubber as control for SO₂ emissions and exhausts to stack 3-1.

- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator as control for PM emissions; FGD scrubber as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.
- (e) One (1) emergency diesel internal combustion engine/generator, identified as PB-2, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB2-1.
- (f) One (1) emergency diesel internal combustion engine/generator, identified as PB-3, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB3-1.
- (g) One (1) emergency diesel internal combustion engine/generator, identified as PB-4, constructed prior to 1967, with a design capacity of 28.4 MMBtu per hour, and exhausting to stack PB4-1.
- (h) Coal handling facility, identified as PB-45 "System A", constructed in 1963, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:
 - (1) Train and truck unloading.
 - (2) Move bulk materials - haul trucks, loaders, bulldozers, other heavy mobile equipment, etc.
 - (3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.
 - (4) Enclosures at drop points.
 - (5) Coal crushing with enclosures.
 - (6) Free fall from overhead conveyor to outside pile.
 - (7) Outside storage pile.
 - (8) Reclaiming and loading.
 - (9) Truck hauling on paved and unpaved roads.
- (i) Coal and limestone handling facility, identified as PB-48 "System B," constructed in 1973, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:
 - (1) Train and truck unloading.
 - (2) Move bulk materials - haul trucks, front-end loaders, bulldozers, other heavy mobile equipment, etc.
 - (3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.
 - (4) Enclosures at drop points.
 - (5) Coal crushing with enclosures.
 - (6) Limestone wet ball mill.

- (7) Outside storage pile.
- (8) Reclaiming and loading.
- (9) Truck hauling on paved and unpaved roads.
- (j) Limestone handling facility, identified as PB-65, constructed in 1993 and modified in 2009, with a maximum throughput of 137.7 tons per hour, consisting of the following operations:
 - (1) Truck unloading.
 - (2) Move bulk materials - haul trucks, dozers, front end loaders, other heavy mobile equipment, etc.
 - (3) Outside storage pile.
 - (4) Reclaiming and loading.
 - (5) Transfer - hoppers, feeders, conveyors, silos, etc.
 - (6) Enclosures at drop points.
 - (7) Baghouses on the silos.
 - (8) Limestone wet ball mills.
 - (9) Truck hauling on paved and unpaved roads.
- (k) FGD sludge (gypsum) handling facility, identified as PB-67, constructed in 1993 and modified in 2009, with a maximum throughput of 300.2 tons per hour, consisting of the following operations:
 - (1) Wet handling to dewatering process.
 - (2) Transfer - hoppers, feeders, conveyors, etc.
 - (3) Enclosures at drop points.
 - (4) Free fall from overhead conveyors to inside piles.
 - (5) Inside and outside storage piles.
 - (6) Loading.
 - (7) Move bulk materials - haul trucks, front end loader, other heavy mobile equipment, etc.
 - (8) Truck hauling on paved and unpaved roads.
- (l) Ash and FGD sludge (filter cake) handling facility, identified as PB-51, with a maximum throughput of 305.6 tons per hour, consisting of the following operations:
 - (1) Move bulk materials - haul trucks, front end loader, bulldozer, excavating, dredging, other heavy mobile equipment, etc.

- (2) Transfer - silos, hoppers, feeders, conveyors, day tanks with baghouses, pugmill mixers with dust collectors, etc.
 - (3) Enclosures at drop points.
 - (4) Conveying dry fly ash to silos with baghouses.
 - (5) Wet process ash handling from Units 3 and 4 to ash pond and/or dewatering bins.
 - (6) Wet process ash handling from Units 1 and 2 to ash ponds.
 - (7) Free fall from overhead conveyor to outside pile.
 - (8) Outside storage pile.
 - (9) Existing ash pond disposal facilities.
 - (10) Landfill disposal facilities for Coal Combustion Products.
 - (11) Truck and tanker loading.
 - (12) Truck unloading.
 - (13) Truck hauling on paved and unpaved roads.
- (m) One (1) fly ash railcar loading operation, identified as BH-N, constructed in 2005, with a maximum throughput rate of 37.5 tons of fly ash per hour, controlled by a baghouse, and exhausting through stack 101.
- (n) One (1) fly ash railcar loading operation from Ash Silo 3, constructed in 2005, with a maximum throughput rate of 200 tons of fly ash per hour, with an enclosed drop from Silo 3 to an air-fluidized enclosed loadout slide from the silo and a gasket drop to enclosed railroad cars, controlled by baghouse B-11, and exhausting through stack 11.
- (o) One (1) Cooling Tower associated with Unit 4, identified as CT-4, permitted in 2011, with a capacity of 224,939 gallons circulating water per minute and a maximum drift rate of 0.001%.
- (p) Activated Carbon Injection Systems, consisting of the following operations:
- (1) One (1) activated carbon injection silo, serving unit 1, identified as ACI-1, approved for construction in 2013, with a maximum storage capacity of 160 tons, and a maximum throughput of 650 lbs/hr, controlled by a bin vent filter.
 - (2) One (1) activated carbon injection silo, serving unit 2, identified as ACI-2, approved for construction in 2013, with a maximum storage capacity of 230 tons, and a maximum throughput of 1,225 lbs/hr, controlled by a bin vent filter.
 - (3) One (1) activated carbon injection silo, serving unit 3, identified as ACI-3, approved for construction in 2013, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,637 lbs/hr, controlled by a bin vent filter.

- (4) One (1) activated carbon injection silo, serving unit 4, identified as ACI-4, approved for construction in 2013, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,640 lbs/hr, controlled by a bin vent filter.

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Coal bunker and coal scale exhausts and associated dust collector vents. [326 IAC 6-3-2]
- (b) Vents from transport systems associated with the handling of various materials including but not limited to vacuum pumps associated with respective operations. [326 IAC 6-3-2]
- (c) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO₂; 5 lb/hr or 25 lb/day NO_x; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:
 - (1) Coal Pile Wind Erosion [326 IAC 6-4] [326 IAC 6-5];
 - (2) Fly ash/FGD Sludge Landfill Drop Points [326 IAC 6-4] [326 IAC 6-5]; and
 - (3) Fly ash/FGD Sludge Landfill Wind Erosion [326 IAC 6-4] [326 IAC 6-5].
 - (4) Sorbent unloading associated with SBS Systems [326 IAC 6-3-2]
- (d) Truck hauling on paved and unpaved roads. [326 IAC 6-4] [326 IAC 6-5]
- (e) One (1) diesel emergency internal combustion engine used to power a fire water pump, installed in 1975, identified as FP-1, with a maximum heat input capacity of 0.483 MMBtu/hr and a rating of 250 brake horsepower (bhp).

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).
- (c) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3);

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

- (a) This permit, T 125-30045-00002, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
- (1) It contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an

action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Southwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

- (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
- (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
- (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T 125-30045-00002 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Reserved

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify

this permit.

- (b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]

- (c) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (d) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs
[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) or (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) or (c)(1).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.
- (f) This condition does not apply to emission trades of SO₂ or NO_x under 326 IAC 21 or

326 IAC 10-4.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) The Permittee may implement administrative amendment changes addressed in the

request for an administrative amendment immediately upon submittal of the request.
[326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on April 01, 2004. The plan is included as Attachment A. The provisions of 326 IAC 6-5 are not federally enforceable.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a),

(b), and (d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the

demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

- (g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.9 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

- (a) For new units:

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

- (b) For existing units:

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of

permit issuance to begin such monitoring. If due to circumstances beyond Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.12 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

This provision C.12, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation to the extent required by 326 IAC 3-5 at all times that the forced draft fan is in operation.
- (b) All applicable COMS, as defined in 40 CFR Part 60, Appendix B Section 1.0, shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.
- (c) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (d) Whenever COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24)

hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.

- (1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not later than twenty-four (24) hours after the start of the malfunction or down time; provided, however, that if such 24-hour period ends during the period beginning two (2) hours before sunset and ending two (2) hours after sunrise, then such visible emissions readings shall begin within four (4) hours of sunrise on the day following the expiration of such 24-hour period.
- (2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until COMS is online.
- (3) Method 9 readings are not required on stacks with operating scrubbers.
- (4) Method 9 readings may be discontinued once a COMS is online.
- (5) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, (and 40 CFR 60 and/or 40 CFR 63).
- (f) Until the continuous emission monitoring system (CEMS) for monitoring particulate matter from the boilers is installed, certified and operating, the Permittee shall comply with the requirements of Condition C.12.

C.13 Reserved

C.14 Reserved

C.15 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.18 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation, not subject to CAM, in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
- (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include,

but is not limited to, the following:

- (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

(II)

- (a) *CAM Response to excursions or exceedances.*
- (1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
 - (2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
- (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.
- (d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

- (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
 - (1) Failed to address the cause of the control device performance problems; or
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
- (h) *CAM recordkeeping requirements.*
 - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.
 - (2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require the certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the Part 70 Permit.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source

location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.
- (c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(o) and/or 326 IAC 2-3-1(j)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(o) and/or 326 IAC 2-3-1(j)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(o) and/or 326 IAC 2-3-1(j)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular

operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3] [40 CFR 64][326 IAC 3-8]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted no later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- (3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

- (b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (d) Reserved
- (e) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial startup, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) *at an existing emissions unit*, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report *for project at an existing emissions unit other than Electric Utility Steam Generating Unit* shall be submitted within sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (h) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (i) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the

reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

- (j) If the Permittee is required to comply with the record keeping provisions of (d) in Section C – General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (k) The report for project at an existing emissions *unit* shall be submitted no later than sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (l) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the applicable standards for recycling and emissions reduction.

Ambient Monitoring Requirements [326 IAC 7-3]

C.24 Ambient Monitoring [326 IAC 7-3]

- (a) The Permittee shall operate continuous ambient sulfur dioxide air quality monitors and a meteorological data acquisition system according to a monitoring plan submitted to the commissioner for approval. The monitoring plan shall include requirements listed in 326 IAC 7-3-2(a)(1), 326 IAC 7-3-2(a)(2) and 326 IAC 7-3-2(a)(3).
- (b) The Permittee and other operators subject to the requirements of this rule, located in the same county, may submit a joint monitoring plan to satisfy the requirements of this rule. [326 IAC 7-3-2(c)]
- (c) The Permittee may petition the commissioner for an administrative waiver of all or some of the requirements of 326 IAC 7-3 if such owner or operator can demonstrate that ambient monitoring is unnecessary to determine continued maintenance of the sulfur dioxide ambient air quality standards in the vicinity of the source. [326 IAC 7-3-2(d)]

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 1 and 2

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator as control for PM emissions; FGD scrubber (installed in 1996) as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 1995) for NO_x reduction; and exhausts to stack 1-1(s) or bypass stack 1-1 (b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator or a baghouse (approved in 2015 for construction), as control for PM emissions; FGD scrubber (installed in 1996), as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004); and low NO_x burner as control for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

- (a) Pursuant to 326 IAC 6-2-3(b), the particulate matter emissions from Unit 1 and Unit 2 shall not exceed 0.38 lb per MMBtu when exhausting to the main stack and 0.37 lb per MMBtu when exhausting to the bypass stack. The pounds per million Btu limits were calculated using the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where C = 50 u/m³

Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)

Q = total source maximum operating capacity rating (Q = 6344 MMBtu/hr)

N = number of stacks (N = 2)

a = plume rise factor (a = 0.8)

h = stack height (h = 621 ft; h of bypass stack = 604.5 ft)

D.1.2 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 1 and 2:
 - (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the PM control device reaches two hundred and fifty (250) degrees Fahrenheit at the inlet to the electrostatic precipitator for Unit 1 and the inlet of the electrostatic precipitator or inlet of the baghouse for Unit 2, whichever occurs first.

For Unit 1, compliance with the opacity limit is determined by adding the Unit 1 Scrubbed and Unit 1 Bypass stacks' opacity exceedances during the startup period. For Unit 2, compliance with the opacity limit is determined by adding the Unit 2 Scrubbed and Unit 2 Bypass stacks' opacity exceedances during the

startup period.

- (2) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of two (2) hours (twenty (20) six (6)-minute averaging periods) during the shutdown period.
- (3) Operation of the electrostatic precipitators are not required during these times.
- (b) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period and opacity in excess of the applicable limit shall not continue for more than one (1) six (6)-minute averaging period in any sixty (60) minute period. The averaging periods shall not be permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period. [326 IAC 5-1-3(b)]
- (c) If a facility cannot meet the opacity limitations in (a) and (b) of this condition, the Permittee may submit a written request to IDEM, OAQ, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.
- (d) This provision, D.1.2, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

D.1.3 Sulfur Dioxide (SO₂) Emission Limitations [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2, the SO₂ emissions from Units 1 and 2 shall each not exceed 6.0 pounds per million Btu (lbs/MMBtu), when burning coal or coal in combination with any other fuel, and five-tenths (0.5) pounds per MMBtu when burning fuel oil

Compliance Determination Requirements

D.1.4 Particulate Control [40 CFR 64]

Except as otherwise provided by statute or rule or in this permit, in order to comply with Condition D.1.1, the particulate control devices (the electrostatic precipitator for Unit 1, and baghouse or the electrostatic precipitator for Unit 2), shall be in operation and control emissions from Units 1 and 2 at all times that the respective facilities are in operation.

D.1.5 Sulfur Dioxide Control

Except as otherwise provided by statute or rule or in this permit, the FGD scrubbers for SO₂ control shall be in operation as needed to maintain compliance with all applicable SO₂ limits.

D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) This provision, D.1.6, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Unit 1 and Unit 2

- (1) In order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing for Units 1 and 2, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

Baghouse for Unit 2

- (2) Within 180 days after issuance of this Permit T125-34687-00002, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM. testing on the Baghouse for Unit 2 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.
- (b) Until the continuous emission monitoring system (CEMS) for monitoring particulate matter from the boilers is installed, certified and operating, the Permittee shall comply with the requirements of Condition D.1.6.

D.1.7 Continuous Emissions Monitoring System (CEMS) for SO₂, NO_x and CO₂ [326 IAC 3-5] [40 CFR Part 75]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment for SO₂, NO_x and CO₂ emissions.
- (b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR Parts 60, 75, and 98 as applicable, or any other performance specification, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (c) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (d) Whenever a continuous emission monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:
 - (1) If the CEMS is required for monitoring NO_x or SO₂ emissions pursuant to 40 CFR 75 (Title IV Acid Rain program), the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D – Missing Data Substitution Procedures.
 - (2) If the CEMS is not used to monitor NO_x or SO₂ emissions pursuant to 40 CFR 75, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 40 CFR 60.

D.1.8 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5] [326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate CEMS measuring PM, HCl and Hg emissions discharged from Unit 1 and Unit 2 stacks to the atmosphere and record the output of the system as specified in paragraphs (a) through (c):

- (a) The PM CEMS shall be installed, certified, operated, and maintained pursuant to 40 CFR Part 60, Appendix B, Performance Specification #11.
- (b) Compliance with the applicable particulate emission limitation in Condition D.1.1 shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet

data.

- (c) Whenever this PM CEMS is malfunctioning or down for repair or adjustments for 24 hours or more, and a backup CEMS is not brought on-line, the following shall be used to provide information related to particulate emissions:
 - (1) The ability of the FGD to control particulate matter emissions shall be monitored once per day when Unit 1 and Unit 2 are in operation by measuring and recording the following:
 - (a) Number of recycle pumps in service; and
 - (b) Absorber pH.

D.1.9 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

This provision, D.1.9, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from Units 1 and 2. The continuous opacity monitoring systems (COMS) shall meet the performance specifications of 326 IAC 3-5-2.
- (b) The COMS must operate and record data during all periods of operation of the affected facilities including periods of startup, shutdown, malfunction or emergency conditions, except for COMS breakdowns, repairs, calibration checks, and zero and span adjustments.
- (c) All COMS are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (d) In instances of COMS downtime, the source shall follow the procedures in accordance with Section C - Maintenance of Continuous Opacity Monitoring Equipment, until such time that the COMS is back in operation.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a COMS pursuant to 326 IAC 3-5, 40 CFR Part 60, and/or 40 CFR Part 75.
- (f) Pursuant to SPM 125-12171-00002, issued on February 20, 2001 and 326 IAC 3-5-1(c)(2)(A)(iii), an alternative monitoring requirement request has been granted for the location of the continuous opacity emission monitors for Unit 2. The monitors shall be located in the unit ducts 2-1 and 2-2 at the ID fan discharge location, downstream of the electrostatic precipitator and upstream of the scrubbers.

The combined data obtained from the continuous opacity monitors located in the ducts of Unit 2 at the Petersburg Generating Station is enforceable information for purposes of demonstrating compliance with 326 IAC 5.

D.1.10 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-2-1(a) and (c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the applicable limits in Condition D.1.3. Compliance with these limits shall be determined using SO₂ CEMS data and demonstrated using a thirty (30) day rolling weighted average.

D.1.11 ORDER of the Commissioner of the Indiana Department of Environmental Management

Pursuant to Indiana Code § 13-14-2-6 and in order to secure compliance with 40 CFR Part 63, Subpart UUUUU, Indianapolis Power & Light Company, Petersburg Station is subject to following ORDER:

1. Indianapolis Power & Light Company shall submit a status report within fifteen (15) days of completion of the following milestones indicating the actual dates of completion:
 - a. The date on-site construction for the installation of the emission control equipment identified in Attachment A (of the Commissioner Order) for Petersburg Unit 2 is initiated, and
 - b. The date on-site construction for the installation of the emission control equipment identified in Attachment A (of the Commissioner Order) for Petersburg Unit 2 is completed.
 - c. The date by which final compliance with 40 CFR 63, Subpart UUUUU for Petersburg Unit 2 is achieved.
2. Indianapolis Power & Light Company, Petersburg Station Unit 2 shall comply with the standards set forth in 40 CFR Part 63, Subpart UUUUU no later than July 16, 2015.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.1.12 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

This provision, D.1.12, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the transformer-rectifier T-R sets.
- (b) Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below 90 percent (90%). T-R set failure resulting in less than 90 percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.1.13 Opacity Readings - Response Steps [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

This provision, D.1.13, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Until the continuous emission monitoring system (CEMS) for monitoring particulate matter from Unit 1 and Unit 2 is installed and certified, the Permittee shall comply with the following:

- (a) Except when the scrubber is in operation and during periods of start up and shut down, appropriate response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the opacity from either boiler exceeds thirty percent (30%) for three (3) consecutive six (6) minute averaging periods. The response steps shall be conducted such that the cause(s) of the excursion are identified and corrected and opacity levels are brought back below thirty percent (30%). Examples of expected response steps include, but are not limited to, boiler loads being reduced, adjustment of flue gas conditioning rate, and ESP T-R sets being returned to service.

- (b) Opacity readings in excess of thirty percent (30%), but not exceeding the opacity limit for the unit, are not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) The Permittee may request that the IDEM, OAQ approve a different opacity trigger level than the one specified in (a) and (b) of this condition, provided the Permittee can demonstrate, through stack testing or other appropriate means, that a different opacity trigger level is appropriate for monitoring compliance with the applicable particulate matter mass emission limits.

D.1.14 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

- (a) Whenever the SO₂ continuous emission monitoring (CEMS) system is malfunctioning or down for repairs or adjustments and a backup CEMS is not brought on-line, the following shall be used to provide information related to SO₂ emissions:
 - (1) If the CEM system is down for less than twenty-four (24) hours and a backup CEMS is not brought on-line, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
 - (2) Whenever the SO₂ continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, and a backup CEMS cannot be brought on-line, the Permittee shall comply with the requirements of 40 CFR 75 Subpart D to demonstrate compliance with Condition D.1.3 until the primary CEMS or a backup CEMS is brought online.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.15 Record Keeping Requirements

- (a) To document the compliance status with Section C - Opacity, and Conditions D.1.1, D.1.2, D.1.11 and D.1.14, the Permittee shall maintain records in accordance with (1) through (5) below. This provision, D.1.15(a), shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity, Condition D.1.1 and Condition D.1.2:
 - (1) Data and results from the most recent stack test until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit.
 - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6 until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit.
 - (3) The results of all Method 9 visible emission readings taken during any periods of COMS downtime when a scrubber is not in service until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit.
 - (4) PM, HCl and Hg CEMS data after the PM, HCl and Hg CEMS is installed, certified and operating to measure PM, HCl and Hg emissions pursuant to this permit; and
 - (5) All ESP parametric monitoring readings.

- (b) To document the compliance status with Conditions D.1.3, D.1.7, D.1.10, and D.1.13, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the SO₂ limits as required in Conditions D.1.3 and D.1.7.
 - (1) All SO₂ continuous emissions monitoring data pursuant to 326 IAC 3-5-6.
 - (2) Calculated fuel usage during each SO₂ CEMS downtime for Unit(s) affected by CEMS downtime lasting 24 hours or more.
 - (3) All ESP parametric monitoring readings.
 - (4) The substitute data used for the missing data periods if data substitution pursuant to 40 CFR Part 75 Subpart D is used to provide data for the SO₂ CEMS downtime, in accordance with Condition D.1.13.
- (c) To document the compliance status with Condition D.1.7, the Permittee shall maintain records of all NO_x continuous emissions monitoring data pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NO_x limits as required in 40 CFR Part 75.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.1.16 Reporting Requirements

- (a) A quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.1.7 and D.1.8 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, not later than thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime (except for zero (0) and span checks, which shall be reported separately) shall include the following:
 - (1) Date of downtime;
 - (2) Time of commencement;
 - (3) Duration of each downtime;
 - (4) Reasons for each downtime; and
 - (5) Nature of system repairs and adjustments.

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 3 and 4

- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator or a baghouse, (approved in 2015 for construction) as control for PM emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004) as control for NO_x emissions; FGD scrubber as control for SO₂ emissions and exhausts to stack 3-1.
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator as control for PM emissions; FGD scrubber as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Unit 3 and Unit 4 except when otherwise specified in 40 CFR Part 60, Subpart D.

D.2.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR Part 60, Subpart D]

Pursuant to 326 IAC 12 and 40 CFR Part 60, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971), emissions from Unit 3 and Unit 4 shall each not exceed the following:

- (a) For particulate matter:
 - (1) One-tenth (0.10) pound PM per million Btu (MMBtu) heat input derived from fossil fuel. [40 CFR 60.42(a)(1)]
 - (2) Twenty percent (20%) opacity except for one six-minute period per hour of not more than twenty-seven percent (27%) opacity. [40 CFR 60.42(a)(2)] Pursuant to 40 CFR 60.11(c), this opacity standard is not applicable during periods of startup, shutdown, or malfunction.
- (b) For sulfur dioxide:
 - (1) Eight-tenths (0.80) pound SO₂ per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.43(a)(1)]
 - (2) One and two-tenths (1.2) pound SO₂ per million Btu (MMBtu) heat input derived from solid fossil fuel. [40 CFR 60.43(a)(2)]
 - (3) When combusting different fossil fuels simultaneously, the applicable SO₂ limit shall be determined using the formula in 40 CFR 60.43(b).
- (c) For nitrogen oxides:

- (1) Three-tenths (0.30) pound NO_x per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.44(a)(2)]
- (2) Seven-tenths (0.70) pound NO_x per million Btu (MMBtu) heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing twenty-five percent (25%), by weight, or more of coal refuse). [40 CFR 60.44(a)(3)]
- (3) When combusting different fossil fuels simultaneously, the applicable NO_x limit shall be determined using the formula in 40 CFR 60.44(b).

D.2.3 Prevention of Significant Deterioration (PSD) BACT [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD BACT), the following requirements shall apply to Unit 4:

- (a) Sulfur dioxide (SO₂) emissions shall not exceed 1.2 pounds per MMBtu heat input when burning coal.
- (b) PM emissions shall not exceed 0.1 pounds per MMBtu heat input.
- (c) Nitrogen oxides (NO_x) emissions shall not exceed 0.7 pounds per MMBtu heat input.

D.2.4 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 3 and 4:

- (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the PM control device reaches two hundred and fifty (250) degrees Fahrenheit at the inlet to the electrostatic precipitator or inlet to the baghouse for Unit 3, and the inlet to the electrostatic precipitator for Unit 4, whichever occurs first.

For Unit 3, compliance with the opacity limit is determined by adding the Unit 3 Scrubbed and Unit 3 Bypass stacks' opacity exceedances during the startup period. For Unit 4, compliance with the opacity limit is determined by adding the Unit 4 Scrubbed and Unit 4 Bypass stacks' opacity exceedances during the startup period.

- (2) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of two (2) hours (twenty (20) six (6)-minute averaging periods) during the shutdown period.
- (3) Operation of the electrostatic precipitators are not required during these times.
- (b) If a facility cannot meet the opacity limitations in (a) and (b) of this condition, the Permittee may submit a written request to IDEM, OAQ, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.
- (c) This provision, D.2.4, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

D.2.5 Sulfur Dioxide (SO₂) Emission Limitations [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2, the SO₂ emissions from Units 3 and 4 shall each not exceed 6.0

pounds per million Btu (lbs/MMBtu), when burning coal or coal in combination with any other fuel, and five-tenths (0.5) pounds per MMBtu when burning fuel oil.

Compliance Determination Requirements

D.2.6 Particulate Control [40 CFR 64]

Except as otherwise specified in this permit, in order to comply with Condition D.2.3(b), the particulate control devices (baghouse or the electrostatic precipitator for Unit 3 and the electrostatic precipitator for Unit 4) shall be in operation and control emissions from Units 3 and 4 at all times that the respective facilities are in operation.

D.2.7 Sulfur Dioxide Control

- (a) In order to comply with Condition D.2.5, the FGD scrubber for SO₂ control shall be in operation and control emissions from Unit 3 at all times that the respective facility is in operation, except when compliance is determined through the use of low sulfur coal as allowed by 40 CFR Part 60, Subpart D.
- (b) In order to comply with Conditions D.2.3(a) and D.2.5, the FGD scrubber for SO₂ control shall be in operation and control emissions from Unit 4 at all times that the facility is in operation, except where compliance is achieved by use of low sulfur coal as allowed by 40 CFR 60, Subpart D.

D.2.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) This provision, D.2.8, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Unit 3 and Unit 4

- (1) In order to demonstrate the compliance status with Condition D.2.3(b), the Permittee shall perform PM testing on Unit 3 and Unit 4. These tests shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

Baghouse for Unit 3

- (2) Within 365 days after issuance of this Permit T125-34687-00002, in order to demonstrate compliance with Condition D.2.3(b), the Permittee shall perform PM testing on the Baghouse for Unit 3 utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every two (2) calendar years following valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

D.2.9 Fuel Sampling and Analysis

In order to demonstrate compliance with Condition D.2.3(a), when the SO₂ continuous emissions monitor is down and coal is fired in the Unit 3 or Unit 4, the Permittee shall conduct coal sampling and analysis required by 40 CFR 60, Subpart D.

D.2.10 Continuous Emission Monitoring System (CEMS) for SO₂, NO_x, and CO₂ [326 IAC 3-5][40 CFR Part 75]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment for SO₂, NO_x and CO₂ emissions.

- (b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR Parts 60, 75, and 98 as applicable.
- (c) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (d) Whenever a continuous emission monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:
 - (1) If the CEMS is required for monitoring NO_x or SO₂ emissions pursuant to 40 CFR 75 (Title IV Acid Rain program), the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D – Missing Data Substitution Procedures.
 - (2) If the CEMS is not used to monitor NO_x or SO₂ emissions pursuant to 40 CFR 75, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 40 CFR 60.

D.2.11 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5][326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 3 and Unit 4 stacks to the atmosphere and record the output of the system as specified in paragraphs (a) through (c):

- (a) The PM CEMS shall be installed, certified, operated, and maintained pursuant to 40 CFR Part 60, Appendix B, Performance Specification #11.
- (b) Compliance with the applicable particulate emission limitation in Condition D.2.3 shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data.
- (c) Whenever this PM CEMS is malfunctioning or down for repair or adjustments for 24 hours or more, and a backup CEMS is not brought on-line, the following shall be used to provide information related to particulate emissions:
 - (1) The ability of the FGD to control particulate matter emissions shall be monitored once per day when Unit 3 and Unit 4 are in operation by measuring and recording the following:
 - (a) Number of recycle pumps in service; and
 - (b) Absorber pH.

D.2.12 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

This provision, D.2.12, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a

continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from Units 3 and 4. The continuous opacity monitoring system (COMS) shall meet the performance specifications of 326 IAC 3-5-2.

- (b) The COMS must operate and record data during all periods of operation of the affected facilities including periods of startup, shutdown, malfunction or emergency conditions, except for COMS breakdowns, repairs, calibration checks, and zero and span adjustments.
- (c) All COMS are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a COMS pursuant to 326 IAC 3-5 and 40 CFR Part 75.

D.2.13 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-2-1(a) and (c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the applicable limits in Condition D.2.5. Compliance with these limits shall be determined using SO₂ CEMS data and demonstrated using a thirty (30) day rolling weighted average.

D.2.14 ORDER of the Commissioner of the Indiana Department of Environmental Management

Pursuant to Indiana Code § 13-14-2-6 and in order to secure compliance with 40 CFR Part 63, Subpart UUUUU, Indianapolis Power & Light Company, Petersburg Station is subject to following ORDER:

1. Indianapolis Power & Light Company shall submit a status report within fifteen (15) days of completion of the following milestones indicating the actual dates of completion:
 - a. The date on-site construction for the installation of the emission control equipment identified in Attachment A (of the Commissioner Order) for Petersburg Unit 3 and 4 are initiated, and
 - b. The date on-site construction for the installation of the emission control equipment identified in Attachment A (of the Commissioner Order) for Petersburg Unit 3 and 4 are completed.
 - c. The date by which final compliance with 40 CFR 63, Subpart UUUUU for Petersburg Unit 3 and 4 are achieved.
2. Indianapolis Power & Light Company, Petersburg Station Unit 3 and 4 shall comply with the standards set forth in 40 CFR Part 63, Subpart UUUUU no later than April 16, 2016.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.2.15 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

This provision, D.2.15, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets.
- (b) Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below

90 percent (90%). T-R set failure resulting in less than 90 percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.2.16 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

- (a) Whenever the SO₂ continuous emission monitoring (CEMS) system is malfunctioning or down for repairs or adjustments and a backup CEMS is not brought on-line, the following shall be used to provide information related to SO₂ emissions:
 - (1) If the CEM system is down for less than twenty-four (24) hours and a backup CEMS is not brought on-line, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
 - (2) Whenever the SO₂ continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, and a backup CEMS cannot be brought on-line, the Permittee shall comply with the requirements of 40 CFR 75 Subpart D to demonstrate compliance with Condition D.2.3(a) until the primary CEMS or a backup CEMS is brought online.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.17 Record Keeping Requirements

- (a) To document the compliance status with Section C - Opacity and Conditions D.2.3, D.2.4, D.2.11, and D.2.14, the Permittee shall maintain records in accordance with (1) through (5) below. This provision, D.2.17(a), shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.3 and D.2.4:
 - (1) Data and results from the most recent stack test until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit;
 - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6 until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit;
 - (3) The results of all Method 9 visible emission readings taken during any periods of COMS downtime when the scrubber is not in service until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit;
 - (4) PM, HCl and Hg CEMS data after the PM, HCl and Hg CEMS is installed, certified and operating to measure PM, HCl and Hg emissions pursuant to this permit; and
 - (5) All ESP parametric monitoring readings.
- (b) To document the compliance status with Conditions D.2.3, D.2.5, D.2.10, D.2.13, and D.2.16, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the SO₂ limits as required in Conditions D.2.3 and D.2.5.
 - (1) All SO₂ continuous emissions monitoring data, pursuant to 326 IAC 3-5-6.

- (2) All scrubber parametric monitoring readings taken in accordance with Condition D.2.7.
- (3) Calculated fuel usage during each SO₂ CEMS downtime for Unit(s) affected by CEMS downtime lasting 24 hours or more.
- (4) The substitute data used for the missing data periods if data substitution pursuant to 40 CFR Part 75 Subpart D is used to provide data for the SO₂ CEMS downtime, in accordance with Condition D.2.16.
- (c) To document the compliance status with Conditions D.2.3, and D.2.10, the Permittee shall maintain records of all NO_x continuous emissions monitoring data, pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NO_x limits as required in Condition D.2.3.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.2.18 Reporting Requirements

- (a) A quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.2.7, D.2.10, and D.2.11, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime (except for zero (0) and span checks, which shall be reported separately) shall include the following:
 - (1) Date of downtime;
 - (2) Time of commencement;
 - (3) Duration of each downtime;
 - (4) Reasons for each downtime; and
 - (5) Nature of system repairs and adjustments.

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Coal Handling Facilities

- (h) Coal handling facility, identified as PB-45 "System A", constructed in 1963, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:
- (1) Train and truck unloading.
 - (2) Move bulk materials - haul trucks, front-end loaders, bulldozers, other heavy mobile equipment, etc.
 - (3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.
 - (4) Enclosures at drop points.
 - (5) Coal crushing with enclosures.
 - (6) Free fall from overhead conveyor to outside pile.
 - (7) Outside storage pile.
 - (8) Reclaiming and loading.
 - (9) Truck hauling on paved and unpaved roads.
- (i) Coal and limestone handling facility, identified as PB-48 "System B," constructed in 1973, with a maximum throughput of 901.8 tons per hour, consisting of the following operations:
- (1) Train and truck unloading.
 - (2) Move bulk materials - haul trucks, front-end loaders, bulldozers, other heavy mobile equipment, etc.
 - (3) Transfer - hoppers, feeders, conveyors, trippers, bunkers, silos, etc.
 - (4) Enclosures at drop points.
 - (5) Coal crushing with enclosures.
 - (6) Limestone wet ball mill.
 - (7) Outside storage pile.
 - (8) Reclaiming and loading.
 - (9) Truck hauling on paved and unpaved roads.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the coal and limestone handling facilities (PB-45 and PB-48) (excluding ash ponds, vehicular traffic on paved and unpaved roads, (including truck hauling), conveyance systems open to the atmosphere, storage piles, free fall to storage piles, tanker and truck loading/unloading, bulk material movement, and general construction activities) shall not exceed an amount determined by the following:

- (a) Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

- (b) When the process weight rate exceeds two hundred (200) tons per hour, the allowable emission may exceed the pounds per hour limitation calculated using the above equation,

provided the concentration of particulate in the discharge gases to the atmosphere is less than 0.10 pounds per one thousand (1,000) pounds of gases.

Compliance Determination Requirements

D.3.2 Particulate Control [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, in order to comply with Condition D.3.1 the enclosures for particulate control shall be in place and control emissions at all times facilities PB-45 "System A" and PB-48 "System B" are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.3 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) Visible emission notations of the unenclosed coal and limestone transfer points shall be performed once per week during normal daylight operations when unloading coal and limestone. A trained employee shall record whether emissions are normal or abnormal.
- (b) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of abnormal emissions that do not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.4 Record Keeping Requirements

- (a) To document the compliance status with Section C - Opacity and Condition D.3.3, the Permittee shall maintain a weekly record of visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (e.g. the process did not operate that day).
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Limestone/Fly Ash/Gypsum Handling Facilities

- (j) Limestone handling facility, identified as PB-65, constructed in 1993 and modified in 2009, with a maximum throughput of 137.7 tons per hour, consisting of the following operations:
 - (1) Truck unloading.
 - (2) Move bulk materials - haul trucks, dozers, front end loaders, other heavy mobile equipment, etc.
 - (3) Outside storage pile.
 - (4) Reclaiming and loading.
 - (5) Transfer - hoppers, feeders, conveyors, silos, etc.
 - (6) Enclosures at drop points.
 - (7) Baghouses on the silos.
 - (8) Limestone wet ball mills.
 - (9) Truck hauling on paved and unpaved roads
- (k) FGD sludge (gypsum) handling facility, identified as PB-67, constructed in 1993 and modified in 2009, with a maximum throughput of 300.2 tons per hour, consisting of the following operations:
 - (1) Wet handling to dewatering process.
 - (2) Transfer - hoppers, feeders, conveyors, etc.
 - (3) Enclosures at drop points.
 - (4) Free fall from overhead conveyors to inside piles.
 - (5) Inside and outside storage piles.
 - (6) Loading.
 - (7) Move bulk materials - haul trucks, front end loader, other heavy mobile equipment, etc.
 - (8) Truck hauling on paved and unpaved roads.
- (l) Ash and FGD sludge (filter cake) handling facility, identified as PB-51, with a maximum throughput of 305.6 tons per hour, consisting of the following operations:
 - (1) Move bulk materials - haul trucks, front end loader, bulldozer, excavating, dredging, other heavy mobile equipment, etc.
 - (2) Transfer - silos, hoppers, feeders, conveyors, day tanks with baghouses, mixers, etc.
 - (3) Enclosures at drop points.
 - (4) Conveying dry fly ash to silos with baghouses.

- (5) Wet process ash handling from Units 3 and 4 to ash pond and/or dewatering bins.
- (6) Wet process ash handling from Units 1 and 2 ash pond.
- (7) Free fall from overhead conveyor to outside pile.
- (8) Outside storage pile.
- (9) Existing ash pond disposal facilities.
- (10) Landfill disposal facilities for Coal Combustion Products.
- (11) Truck and tanker loading.
- (12) Truck unloading.
- (13) Truck hauling on paved and unpaved roads.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to facility PB-65 except when otherwise specified in 40 CFR Part 60, Subpart OOO.

D.4.2 New Source Performance Standard (NSPS): Nonmetallic Mineral Processing Plants [326 IAC 12] [40 CFR 60, Subpart OOO]

The limestone handling facility, PB-65, shall comply with the applicable portions of 40 CFR 60, Subpart OOO, incorporated by reference in 326 IAC 12-1.

D.4.3 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall control fugitive dust on paved roads by wetting or flushing with a watering truck or cleaning with a vacuum-sweeper on an as needed basis as specified in the Fugitive Dust Control Plan in Attachment B.

Therefore, the emissions from the modification (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4) and the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4, are limited to less than 25 tons/yr for PM, and the requirements of 326 IAC 2-2 (PSD) are not applicable to the modification (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4) nor the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4.

Further, the emissions from the modification (SSM 125-32721-00002), approved in 2013 (installation of ACI Systems, Sorbent Unloading associated with SBS Systems, and increased Ash handling emissions) are limited to less than 25 tons per year for PM, less than 15 tons per year for PM₁₀ and less than 10 tons per year for PM_{2.5}. The requirements of 326 IAC 2-2 (PSD) are not applicable to the modification (SSM 125-32721-00002).

D.4.4 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the operations performed at facilities PB-51 (excluding ash ponds, vehicular traffic on paved and unpaved roads (includes truck hauling), conveyance systems open to the atmosphere, storage piles, tanker and truck loading/unloading, bulk material movement, and general construction activities) shall not exceed an amount determined by the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

- (b) When the process weight rate exceeds two hundred (200) tons per hour, the allowable emission may exceed the pounds per hour limitation calculated using the above equation, provided the concentration of particulate in the discharge gases to the atmosphere is less than 0.10 pounds per one thousand (1,000) pounds of gases.

Compliance Determination Requirement

D.4.5 NSPS Compliance Provisions [326 IAC 12] [40 CFR 60, Subpart OOO]

Compliance with the particulate and opacity emission limitations in Condition D.4.2 shall be determined by the methods and procedures specified in 40 CFR 60.675.

D.4.6 Particulate Control [326 IAC 2-7-6(6)]

In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.7 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) Visible emission notations of the exhaust from the limestone/fly ash silo baghouses shall be performed once per week during normal daylight operations when the respective facilities are in operation. A trained employee shall record whether any emissions are observed.
- (b) Visible emission notations of the exhaust from all unenclosed limestone/gypsum transfer points shall be performed once per week during normal daylight when transferring the respective material. A trained employee shall record whether emissions are normal or abnormal.
- (c) Visible emissions notations of the exhaust from all unenclosed fly ash transfer points shall be performed once per day during normal daylight when transferring the respective material. A trained employee shall record whether emissions are normal or abnormal.
- (d) If visible emissions are observed crossing the property line or boundaries of the property, right-of-way, or easement on which the source is located, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of an abnormal emission that does not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (f) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (g) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (h) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

D.4.8 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- (a) The Permittee shall record the pressure drop across the baghouses used in conjunction with the silos at least once per week when the silos are receiving material. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure drop shall comply with Section C - Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.9 Record Keeping Requirements

- (a) To document the compliance status with Section C - Opacity and Condition D.4.7, the Permittee shall maintain a weekly record of visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (e.g. the process did not operate that day).
- (b) To document the compliance status with Condition D.4.8, the Permittee shall maintain a weekly record of the pressure drop across each baghouse. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (e.g. the process did not operate that day).
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

- (a) Coal bunker and coal scale exhausts and associated dust collector vents [326 IAC 6-3-2].
- (b) Vents from transport systems associated with the handling of various materials including but not limited to vacuum pumps associated with respective operations. [326 IAC 6-3-2].
- (c) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 25 lb/day PM; 5 lb/hr or 25 lb/day SO₂; 5 lb/hr or 25 lb/day NO_x; 3 lb/hr or 15 lb/day VOC; 0.6 tons per year Pb; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:
 - (1) Coal Pile Wind Erosion [326 IAC 6-4] [326 IAC 6-5].
 - (2) Fly ash/FGD Sludge Landfill Drop Points [326 IAC 6-4] [326 IAC 6-5].
 - (3) Fly ash/FGD Sludge Landfill Wind Erosion [326 IAC 6-4] [326 IAC 6-5].
 - (4) Sorbent unloading associated with SBS Systems [326 IAC 6-3-2]
- (d) Truck hauling on paved and unpaved roads. [326 IAC 6-4] [326 IAC 6-5]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from coal bunker and coal scale exhausts and associated dust collector vents and vents from transport systems associated with the handling of various materials, including but not limited to vacuum pumps associated with respective operations, shall not exceed an amount determined by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour.

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Fly Ash Loadout Operations

- (m) One (1) fly ash railcar loading operation, identified as BH-N, constructed in 2005, with a maximum throughput rate of 37.5 tons of fly ash per hour, controlled by a baghouse, and exhausting through stack 101.
- (n) One (1) fly ash railcar loading operation from Ash Silo 3, constructed in 2005, with a maximum throughput rate of 200 tons of fly ash per hour, with an enclosed drop from Silo 3 to an air-fluidized enclosed loadout slide from the silo and a gasket drop to enclosed railroad cars, controlled by baghouse B-11, and exhausting through stack 11.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 PSD Minor Limits [326 IAC 2-2][326 IAC 6-3-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

Unit Description	PM Limit (lbs/hr)	PM10 Limit (lbs/hr)	Construction Permit
Fly Ash Railcar Loading Operation BH-N	5.68	3.40	SSM #125-20083-00002, issued on June 7, 2005
Fly Ash Rail Loading Operation from Ash Silo 3	5.69	3.40	SSM #125-21340-00002, issued on September 26, 2005

Therefore, the emissions from each of the fly ash railcar loading operations are limited to less than 25 tons/yr for PM and less than 15 tons/yr for PM₁₀, and the requirements of 326 IAC 2-2 (PSD) are not applicable to these operations when they were constructed. Compliance with this permit condition will also satisfy the requirements of 326 IAC 6-3-2.

Compliance Determination Requirement

D.6.2 PM and PM₁₀ Control [40 CFR 64]

- (a) In order to comply with Conditions D.6.1, the baghouses for particulate control shall be in operation and control emissions from the fly ash railcar loading operations at all times that these units are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.3 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

- (a) Visible emission notations of the baghouse stack exhausts (stacks 101 and 11) for the fly ash railcar loading operations shall be performed at least once per week during normal

daylight operations. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Observation of an abnormal emission that does not violate 326 IAC 6-4 (Fugitive Dust Emissions) or an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

D.6.4 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the fly ash railcar loading operations at least once per week. When for any one reading, the pressure drop across the baghouse is outside the normal ranges listed in the table below or range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Unit Description	Baghouse Stack ID	Pressure Drop Range (inches of water)
Fly Ash Railcar Loading Operation BH-N	101	0.5 - 6.0
Fly Ash Rail Loading Operation from Ash Silo 3	11	0.5 - 6.0

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, and shall be calibrated in accordance with the manufacturer's specifications. The specifications shall be available on site with the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.5 Record Keeping Requirements

- (a) To document the compliance status with Section C - Opacity and Condition D.6.3, the Permittee shall maintain a weekly record of visible emission notations. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notations (e.g. the process did not operate that day).
- (b) To document the compliance status with Condition D.6.4, the Permittee shall maintain a weekly record of the pressure drop across each baghouse. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the

lack of visible emission notations (e.g. the process did not operate that day).

- (c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Cooling Towers

- (o) One (1) Cooling Tower associated with Unit 4, identified as CT-4, permitted in 2011, with a capacity of 224,939 gallons circulating water per minute and a maximum drift rate of 0.001%.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 PSD Minor Limit [326 IAC 2-2]

The existing Unit 4 Cooling Tower shall be permanently shutdown prior to the startup of the proposed CT-4.

Compliance with the above requirement and the requirement in Condition D.4.3 will restrict the potential to emit PM from the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4, and the scrubber modification (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4) to less than twenty-five (25) tons per year. Therefore the requirements of 326 IAC 2-2 (PSD) are not applicable to the modification approved in 2011 for the Unit 4 Cooling Tower, CT-4 nor the scrubber project (SSM 125-26913-00002) approved in 2009 (installation and operation of a limestone wet ball mill and a limestone storage silo and associated limestone and gypsum handling systems for Unit 4).

Compliance Determination Requirements

D.7.2 Particulate Control [326 IAC 2-7-6(6)]

The drift eliminators for particulate control shall be in operation and control emissions at all times that CT-4 is in operation.

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Activated Carbon Injection Systems

(p) Activated Carbon Injection Systems, consisting of the following operations:

- (1) One (1) activated carbon injection silo, serving unit 1, identified as ACI-1, approved for construction in 2013, with a maximum storage capacity of 160 tons, and a maximum throughput of 650 lbs/hr, controlled by a bin vent filter.
- (2) One (1) activated carbon injection silo, serving unit 2, identified as ACI-2, approved for construction in 2013, with a maximum storage capacity of 230 tons, and a maximum throughput of 1,225 lbs/hr, controlled by a bin vent filter.
- (3) One (1) activated carbon injection silo, serving unit 3, identified as ACI-3, approved for construction in 2013, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,637 lbs/hr, controlled by a bin vent filter.
- (4) One (1) activated carbon injection silo, serving unit 4, identified as ACI-4, approved for construction in 2013, with a maximum storage capacity of 275 tons, and a maximum throughput of 1,640 lbs/hr, controlled by a bin vent filter.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.8.1 PSD Minor Limits [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

Unit Description	PM Limit (lbs/hr)	PM10 Limit (lbs/hr)	PM2.5 Limit (lbs/hr)
ACI-1	0.12	0.06	0.06
ACI-2	0.12	0.06	0.06
ACI-3	0.12	0.06	0.06
ACI-4	0.12	0.06	0.06

Compliance with these emission limits and Condition D.4.3 together with the projected emissions increase from existing boilers, paved roads and fly ash handling will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per year, less than fifteen (15) tons of PM₁₀ per year and less than ten (10) tons of PM_{2.5} per year and therefore will render the requirements of 326 IAC 2-2 not applicable to the 2013 modification (SSM 125-32721-00002).

D.8.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emission rate from the Activated Carbon Injection Systems and Sorbent Unloading operations shall not exceed the emission limits listed in the table below:

Unit Description	Max. Throughput (tons/hr)	Particulate Emission Limit (lbs/hr)
ACI-1	0.325	1.93
ACI-2	0.6125	2.95
ACI-3	0.8185	3.59
ACI-4	0.82	3.59

The emission limits above were calculated using the equation below:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Compliance Determination Requirements

D.8.3 Particulate Control [326 IAC 2-7-6(6)]

In order to ensure compliance with the particulate matter emissions limits specified in Condition D.8.1 silo bin vent filters shall in operation and controlling emissions whenever the equipment is in operation and venting to the control device.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.8.4 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Visible emission notations of the activated carbon injection silos identified as ACI-1, ACI-2, ACI-3 and ACI-4 shall be performed once per week during normal daylight operations when the equipment is in operation. A trained employee shall record whether emissions are normal or abnormal.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.8.5 Record Keeping Requirements

To document the compliance status with Condition D.8.4- Visible Emission Notation, the Permittee shall maintain weekly records of the visible emission notations from Activated Carbon injection system identified as ACI-1, ACI-2, ACI-3, and ACI-4. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

SECTION E.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator as control for PM emissions; FGD scrubber (installed in 1996) as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 1995) for NO_x reduction; and exhausts to stack 1-1(s) or bypass stack 1-1 (b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator or a baghouse (approved in 2015 for construction), as control for PM emissions; FGD scrubber (installed in 1996), as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004); and low NO_x burner as control for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator or a baghouse, (approved in 2015 for construction) as control for PM emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004) as control for NO_x emissions; FGD scrubber as control for SO₂ emissions and exhausts to stack 3-1.
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator as control for PM emissions; FGD scrubber as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR 63]

E.1.1 General Provisions Relating to NESHAP [326 IAC 20-82][40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to the Boilers 1, 2, 3, and 4.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 NESHAP Subpart UUUUU Requirements [326 IAC 20-82][40 CFR Part 63, Subpart UUUUU]

Pursuant to 40 CFR Part 63, Subpart UUUUU, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart UUUUU, which are incorporated by reference as 326 IAC 20 (included as Attachment G to this permit), for the above listed emissions units, as specified as follows.

The four (4) Boiler Units 1, 2, 3, and 4, are subject to the following portions of Subpart UUUUU:

- (1) 40 CFR 63.9980
- (2) 40 CFR 63.9981
- (3) 40 CFR 63.9982(a)(1), (d)
- (4) 40 CFR 63.9984(b), (c), (f)
- (5) 40 CFR 63.9990(a)(1)
- (6) 40 CFR 63.9991(a)(1), (b)
- (7) 40 CFR 63.10000(a), (b), (c)(1)(i)(A), (c)(1)(iv)(B), (c)(1)(v), (c)(1)(vi), (d)(1), (d)(2), (e)
- (8) 40 CFR 63.10001
- (9) 40 CFR 63.10005(a)(2)(i), (b)(2), (b)(3), (b)(4), (d)(1), (d)(3), (e), (f), (j), (k)
- (10) 40 CFR 63.10006(i), (j)
- (11) 40 CFR 63.10007(a)(1), (b), (e)(2)(ii), (e)(2)(v), (f)
- (12) 40 CFR 63.10009
- (13) 40 CFR 63.10010(a)(1), (a)(4), (b), (d), (e), (g), (i)
- (14) 40 CFR 63.10011(a), (c), (f), (g)
- (15) 40 CFR 63.10020
- (16) 40 CFR 63.10021(a), (b), (e), (f), (g), (h), (i)
- (17) 40 CFR 63.10022(a)(1), (b)
- (18) 40 CFR 63.10030(a), (b), (d), (e)
- (19) 40 CFR 63.10031
- (20) 40 CFR 63.10032(a), (b), (c), (d)(1), (e), (f), (g), (h), (i)
- (21) 40 CFR 63.10033
- (22) 40 CFR 63.10040
- (23) 40 CFR 63.10041
- (24) 40 CFR 63.10042
- (25) 40 CFR 63, Subpart UUUUU, Table 2(1)
- (26) 40 CFR 63, Subpart UUUUU, Table 3(1), (3), (4)
- (27) 40 CFR 63, Subpart UUUUU, Table 5(1), (3), (4)
- (28) 40 CFR 63, Subpart UUUUU, Table 7(1), (5), (6), (7)
- (29) 40 CFR 63, Subpart UUUUU, Table 8
- (30) 40 CFR 63, Subpart UUUUU, Table 9

SECTION E.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(14)]: Insignificant Activities

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (e) One (1) diesel emergency internal combustion engine used to power a fire water pump, installed in 1975, identified as FP-1, with a maximum heat input capacity of 0.483 MMBtu/hr and a rating of 250 brake horsepower (bhp).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants [40 CFR 63, Subpart ZZZZ] Emission Limitations and Standards [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]

- (a) The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to FP-1, except when otherwise specified in 40 CFR 63, Subpart ZZZZ.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.2.2 Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]

Pursuant to 40 CFR 63 Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR 63 Subpart ZZZZ (included as Attachment F to this permit), which are incorporated as 326 IAC 20-82 for the FP-1, as specified as follows:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(1)(ii)
- (4) 40 CFR 63.6595(a)(1)
- (5) 40 CFR 63.6602
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6612
- (8) 40 CFR 63.6620
- (9) 40 CFR 63.6625(e),(f),(h),(i)
- (10) 40 CFR 63.6640(a),(b),(e),(f)
- (11) 40 CFR 63.6645(a)(5)
- (12) 40 CFR 63.6650(a),(b)(1)-(5),(c),(d),(e),(f)
- (13) 40 CFR 63.6655(a)(1),(2),(4),(b),(d),(e),(f)(1)
- (14) 40 CFR 63.6660
- (15) 40 CFR 63.6665
- (16) 40 CFR 63.6670
- (17) 40 CFR 63.6675

(18) Table 2c(1), 6(9), 7(a) and 8.

SECTION E.3

TITLE IV CONDITIONS

ORIS Code: 994

Facility Description [326 IAC 2-7-5(14)]

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator as control for PM emissions; FGD scrubber (installed in 1996) as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 1995) for NO_x reduction; and exhausts to stack 1-1(s) or bypass stack 1-1 (b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator or a baghouse (approved in 2015 for construction), as control for PM emissions; FGD scrubber (installed in 1996), as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004); and low NO_x burner as control for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator or a baghouse, (approved in 2015 for construction) as control for PM emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004) as control for NO_x emissions; FGD scrubber as control for SO₂ emissions and exhausts to stack 3-1.
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator as control for PM emissions; FGD scrubber as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Acid Rain Program

E.3.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]

Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain permit issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78. The Acid Rain permit for this source is attached to this permit as Appendix C, and is incorporated by reference.

E.3.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations:

- (a) No revision of this permit shall be required for increases in emissions that are authorized by allowances acquired under the Title IV Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement.
- (b) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not use allowances as a defense to noncompliance with any other applicable requirement.

- (c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act.

SECTION G Clean Air Interstate Rule (CAIR) Nitrogen Oxides Annual, Sulfur Dioxide, and Nitrogen Oxides Ozone Season Trading Programs – CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

ORIS Code: 994

CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator as control for PM emissions; FGD scrubber (installed in 1996) as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 1995) for NO_x reduction; and exhausts to stack 1-1(s) or bypass stack 1-1 (b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator or a baghouse (approved in 2015 for construction), as control for PM emissions; FGD scrubber (installed in 1996), as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction; selective catalytic reduction (installed in 2004); and low NO_x burner as control for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator or a baghouse, (approved in 2015 for construction) as control for PM emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004) as control for NO_x emissions; FGD scrubber as control for SO₂ emissions and exhausts to stack 3-1.
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator as control for PM emissions; FGD scrubber as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

G.1 Automatic Incorporation of Definitions [326 IAC 24-1-7(e)] [326 IAC 24-2-7(e)] [326 IAC 24-3-7(e)] [40 CFR 97.123(b)] [40 CFR 97.223(b)] [40 CFR 97.323(b)]

This CAIR permit is deemed to incorporate automatically the definitions of terms under 326 IAC 24-1-2, 326 IAC 24-2-2, and 326 IAC 24-3-2.

G.2 Standard Permit Requirements [326 IAC 24-1-4(a)] [326 IAC 24-2-4(a)] [326 IAC 24-3-4(a)] [40 CFR 97.106(a)] [40 CFR 97.206(a)] [40 CFR 97.306(a)]

- (a) The owners and operators of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall operate each unit in compliance with this CAIR permit.
- (b) The CAIR NO_x unit(s), CAIR SO₂ unit(s), and CAIR NO_x ozone season unit(s) subject to this CAIR permit are Units 1, 2, 3, and 4.

G.3 Monitoring, Reporting, and Record Keeping Requirements [326 IAC 24-1-4(b)]
[326 IAC 24-2-4(b)] [326 IAC 24-3-4(b)] [40 CFR 97.106(b)] [40 CFR 97.206(b)]
[40 CFR 97.306(b)]

- (a) The owners and operators, and the CAIR designated representative, of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall comply with the applicable monitoring, reporting, and record keeping requirements of 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11.
- (b) The emissions measurements recorded and reported in accordance with 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11 shall be used to determine compliance by each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source with the CAIR NO_x emissions limitation under 326 IAC 24-1-4(c), CAIR SO₂ emissions limitation under 326 IAC 24-2-4(c), and CAIR NO_x ozone season emissions limitation under 326 IAC 24-3-4(c) and Condition G.4.1, Nitrogen Oxides Emission Requirements, Condition G.4.2, Sulfur Dioxide Emission Requirements, and Condition G.4.3, Nitrogen Oxides Ozone Season Emission Requirements.

G.4.1 Nitrogen Oxides Emission Requirements [326 IAC 24-1-4(c)] [40 CFR 97.106(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x source and each CAIR NO_x unit at the source shall hold, in the source's compliance account, CAIR NO_x allowances available for compliance deductions for the control period under 326 IAC 24-1-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x units at the source, as determined in accordance with 326 IAC 24-1-11.
- (b) A CAIR NO_x unit shall be subject to the requirements under 326 IAC 24-1-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-1-4(c)(2), and for each control period thereafter.
- (c) A CAIR NO_x allowance shall not be deducted for compliance with the requirements under 326 IAC 24-1-4(c)(1), for a control period in a calendar year before the year for which the CAIR NO_x allowance was allocated.
- (d) CAIR NO_x allowances shall be held in, deducted from, or transferred into or among CAIR NO_x allowance tracking system accounts in accordance with 326 IAC 24-1-9, 326 IAC 24-1-10, and 326 IAC 24-1-12.
- (e) A CAIR NO_x allowance is a limited authorization to emit one (1) ton of nitrogen oxides in accordance with the CAIR NO_x annual trading program. No provision of the CAIR NO_x annual trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-1-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR NO_x allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-1-8, 326 IAC 24-1-9, 326 IAC 24-1-10, or 326 IAC 24-1-12, every allocation, transfer, or deduction of a CAIR NO_x allowance to or from a CAIR NO_x source's compliance account is incorporated automatically in this CAIR permit.

G.4.2 Sulfur Dioxide Emission Requirements [326 IAC 24-2-4(c)] [40 CFR 97.206(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO₂ allowances available for compliance deductions for the control period under 326 IAC 24-2-8(j) and 326 IAC 24-2-8(k) not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with 326 IAC 24-2-10.
- (b) A CAIR SO₂ unit shall be subject to the requirements under 326 IAC 24-2-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-2-4(c)(2), and for each control period thereafter.
- (c) A CAIR SO₂ allowance shall not be deducted for compliance with the requirements under 326 IAC 24-2-4(c)(1), for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
- (d) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ allowance tracking system accounts in accordance with 326 IAC 24-2-8, 326 IAC 24-2-9, and 326 IAC 24-2-11.
- (e) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ trading program. No provision of the CAIR SO₂ trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-2-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR SO₂ allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-2-8, 326 IAC 24-2-9, or 326 IAC 24-2-11, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ source's compliance account is incorporated automatically in this CAIR permit.

G.4.3 Nitrogen Oxides Ozone Season Emission Requirements [326 IAC 24-3-4(c)] [40 CFR 97.306(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO_x ozone season source and each CAIR NO_x ozone season unit at the source shall hold, in the source's compliance account, CAIR NO_x ozone season allowances available for compliance deductions for the control period under 326 IAC 24-3-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x ozone season units at the source, as determined in accordance with 326 IAC 24-3-11.
- (b) A CAIR NO_x ozone season unit shall be subject to the requirements under 326 IAC 24-3-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-3-4(c)(2), and for each control period thereafter.
- (c) A CAIR NO_x ozone season allowance shall not be deducted for compliance with the requirements under 326 IAC 24-3-4(c)(1), for a control period in a calendar year before the year for which the CAIR NO_x ozone season allowance was allocated.
- (d) CAIR NO_x ozone season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x ozone season allowance tracking system accounts in accordance with 326 IAC 24-3-9, 326 IAC 24-3-10, and 326 IAC 24-3-12.

- (e) A CAIR NO_x ozone season allowance is a limited authorization to emit one (1) ton of nitrogen oxides in accordance with the CAIR NO_x ozone season trading program. No provision of the CAIR NO_x ozone season trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-3-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR NO_x ozone season allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-3-9, 326 IAC 24-3-10, or 326 IAC 24-3-12, every allocation, transfer, or deduction of a CAIR NO_x ozone season allowance to or from a CAIR NO_x ozone season source's compliance account is incorporated automatically in this CAIR permit.

G.5 Excess Emissions Requirements [326 IAC 24-1-4(d)] [326 IAC 24-2-4(d)] [326 IAC 24-3-4(d)] [40 CFR 97.106(d)] [40 CFR 97.206(d)] [40 CFR 97.306(d)]

- (a) The owners and operators of a CAIR NO_x source and each CAIR NO_x unit that emits nitrogen oxides during any control period in excess of the CAIR NO_x emissions limitation shall do the following:
 - (1) Surrender the CAIR NO_x allowances required for deduction under 326 IAC 24-1-9(j)(4).
 - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-1-4, the Clean Air Act (CAA), and applicable state law.

- (b) The owners and operators of a CAIR SO₂ source and each CAIR SO₂ unit that emits sulfur dioxide during any control period in excess of the CAIR SO₂ emissions limitation shall do the following:
 - (1) Surrender the CAIR SO₂ allowances required for deduction under 326 IAC 24-2-8(k)(4).
 - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-2-4, the Clean Air Act (CAA), and applicable state law.

- (c) The owners and operators of a CAIR NO_x ozone season source and each CAIR NO_x ozone season unit that emits nitrogen oxides during any control period in excess of the CAIR NO_x ozone season emissions limitation shall do the following:
 - (1) Surrender the CAIR NO_x ozone season allowances required for deduction under 326 IAC 24-3-9(j)(4).
 - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-3-4, the Clean Air Act (CAA), and applicable state law.

G.6 Record Keeping Requirements [326 IAC 24-1-4(e)] [326 IAC 24-2-4(e)] [326 IAC 24-3-4(e)]
[326 IAC 2-7-5(3)] [40 CFR 97.106(e)] [40 CFR 97.206(e)] [40 CFR 97.306(e)]

Unless otherwise provided, the owners and operators of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall keep on site at the source or at a central location within Indiana for those owners or operators with unattended sources, each of the following documents for a period of five (5) years from the date the document was created:

- (a) The certificate of representation under 326 IAC 24-1-6(h), 326 IAC 24-2-6(h), 326 IAC 24-3-6(h) for the CAIR designated representative for the source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation. The certificate and documents shall be retained on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond such five (5) year period until such documents are superseded because of the submission of a new account certificate of representation under 326 IAC 24-1-6(h), 326 IAC 24-2-6(h), 326 IAC 24-3-6(h) changing the CAIR designated representative.
- (b) All emissions monitoring information, in accordance with 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11, provided that to the extent that 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11 provides for a three (3) year period for record keeping, the three (3) year period shall apply.
- (c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program.
- (d) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program or to demonstrate compliance with the requirements of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program.

This period may be extended for cause, at any time before the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Unless otherwise provided, all records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

G.7 Reporting Requirements [326 IAC 24-1-4(e)] [326 IAC 24-2-4(e)] [326 IAC 24-3-4(e)]
[40 CFR 97.106(e)] [40 CFR 97.206(e)] [40 CFR 97.306(e)]

- (a) The CAIR designated representative of the CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source shall submit the reports required under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program, including those under 326 IAC 24-1-11, 326 IAC 24-2-10, and 326 IAC 24-3-11.

- (b) Pursuant to 326 IAC 24-1-4(e), 326 IAC 24-2-4(e), and 326 IAC 24-3-4(e) and 326 IAC 24-1-6(e)(1), 326 IAC 24-2-6(e)(1), and 326 IAC 24-3-6(e)(1), each submission under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

- (c) Where 326 IAC 24-1, 326 IAC 24-2, and 326 IAC 24-3 requires a submission to IDEM, OAQ, the information shall be submitted to:

Indiana Department of Environmental Management
Office of Air Quality
100 North Senate Avenue
MC 61-53, IGCN 1003
Indianapolis, Indiana 46204-2251

- (d) Where 326 IAC 24-1, 326 IAC 24-2, and 326 IAC 24-3 requires a submission to U.S. EPA, the information shall be submitted to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue, NW
Mail Code 6204N
Washington, DC 20460

G.8 Liability [326 IAC 24-1-4(f)] [326 IAC 24-2-4(f)] [326 IAC 24-3-4(f)] [40 CFR 97.106(f)]
[40 CFR 97.206(f)] [40 CFR 97.306(f)]

The owners and operators of each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall be liable as follows:

- (a) Each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall meet the requirements of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program, respectively.
- (b) Any provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program that applies to a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source or the CAIR designated representative of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source shall also apply to the owners and operators of such source and of the CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source.
- (c) Any provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program that applies to a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit or the CAIR designated representative of a CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit shall also apply to the owners and operators of such unit.

G.9 Effect on Other Authorities [326 IAC 24-1-4(g)] [326 IAC 24-2-4(g)] [326 IAC 24-3-4(g)]
[40 CFR 97.106(g)] [40 CFR 97.206(g)] [40 CFR 97.306(g)]

No provision of the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program, a CAIR permit application, a CAIR permit, or an exemption under 326 IAC 24-1-3, 326 IAC 24-2-3, and 326 IAC 24-3-3 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source or CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act (CAA).

G.10 CAIR Designated Representative and Alternate CAIR Designated Representative
[326 IAC 24-1-6] [326 IAC 24-2-6] [326 IAC 24-3-6] [40 CFR 97, Subpart BB] [40 CFR 97, Subpart BBB] [40 CFR 97, Subpart BBBB]

- (a) Pursuant to 326 IAC 24-1-6, 326 IAC 24-2-6, and 326 IAC 24-3-6, each CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source and each CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source, shall have one (1) and only one (1) CAIR designated representative, with regard to all matters under the CAIR NO_x annual trading program, CAIR SO₂ trading program, and CAIR NO_x ozone season trading program concerning the source or any CAIR NO_x unit, CAIR SO₂ unit, and CAIR NO_x ozone season unit at the source.
- (b) The provisions of 326 IAC 24-1-6(f), 326 IAC 24-2-6(f), and 326 IAC 24-3-6(f) shall apply where the owners or operators of a CAIR NO_x source, CAIR SO₂ source, and CAIR NO_x ozone season source choose to designate an alternate CAIR designated representative.

Except as specified in 326 IAC 24-1-6(f)(3), 326 IAC 24-2-6(f)(3), 326 IAC 24-3-6(f)(3), whenever the term "CAIR designated representative" is used, the term shall be construed to include the CAIR designated representative or any alternate CAIR designated representative.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Indianapolis Power & Light Company - Petersburg Generating Station
Source Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Part 70 Permit No.: T 125-6565-00002

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify)
- ☐ Report (specify)
- ☐ Notification (specify)
- ☐ Affidavit (specify)
- ☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
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PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: IPL - Petersburg Generating Station
Source Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Part 70 Permit No.: T 125-6565-00002

This form consists of 2 pages

Page 1 of 2

- ☐ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: IPL - Petersburg Generating Station
Source Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Part 70 Permit No.: T 125-6565-00002

Months: _____ **to** _____ **Year:** _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attachment G

Part 70 Operating Permit No: S125-34005-00002

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart UUUUU—National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units

SOURCE: 77 FR 9464, Feb. 16, 2012, unless otherwise noted.

WHAT THIS SUBPART COVERS

§63.9980 What is the purpose of this subpart?

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from coal- and oil-fired electric utility steam generating units (EGUs) as defined in §63.10042 of this subpart. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§63.9981 Am I subject to this subpart?

You are subject to this subpart if you own or operate a coal-fired EGU or an oil-fired EGU as defined in §63.10042 of this subpart.

§63.9982 What is the affected source of this subpart?

(a) This subpart applies to each individual or group of two or more new, reconstructed, or existing affected source(s) as described in paragraphs (a)(1) and (2) of this section within a contiguous area and under common control.

(1) The affected source of this subpart is the collection of all existing coal- or oil-fired EGUs, as defined in §63.10042, within a subcategory.

(2) The affected source of this subpart is each new or reconstructed coal- or oil-fired EGU as defined in §63.10042.

(b) An EGU is new if you commence construction of the coal- or oil-fired EGU after May 3, 2011.

(c) An EGU is reconstructed if you meet the reconstruction criteria as defined in §63.2, and if you commence reconstruction after May 3, 2011.

(d) An EGU is existing if it is not new or reconstructed. An existing electric steam generating unit that meets the applicability requirements after the effective date of this final rule due to a change in process (e.g., fuel or utilization) is considered to be an existing source under this subpart.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23402, Apr. 19, 2012; 78 FR 24084, Apr. 24, 2013]

§63.9983 Are any EGUs not subject to this subpart?

The types of electric steam generating units listed in paragraphs (a) through (d) of this section are not subject to this subpart.

(a) Any unit designated as a stationary combustion turbine, other than an integrated gasification combined cycle (IGCC) unit, covered by 40 CFR part 63, subpart YYYY.

(b) Any electric utility steam generating unit that is not a coal- or oil-fired EGU and combusts natural gas for more than 10.0 percent of the average annual heat input during any 3 calendar years or for more than 15.0 percent of the annual heat input during any calendar year.

(c) Any electric utility steam generating unit that has the capability of combusting more than 25 MW of coal or oil but did not fire coal or oil for more than 10.0 percent of the average annual heat input during any 3 calendar years or for more than 15.0 percent of the annual heat input during any calendar year. Heat input means heat derived from combustion of fuel in an EGU and does not include the heat derived from preheated combustion air, recirculated flue gases or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and industrial boilers).

(d) Any electric steam generating unit combusting solid waste is a solid waste incineration unit subject to standards established under sections 129 and 111 of the Clean Air Act.

§63.9984 When do I have to comply with this subpart?

(a) If you have a new or reconstructed EGU, you must comply with this subpart by April 16, 2012 or upon startup of your EGU, whichever is later, and as further provided for in §63.10005(g).

(b) If you have an existing EGU, you must comply with this subpart no later than April 16, 2015.

(c) You must meet the notification requirements in §63.10030 according to the schedule in §63.10030 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

(d) An electric steam generating unit that does not meet the definition of an EGU subject to this subpart on April 16, 2012 for new sources or April 16, 2015 for existing sources must comply with the applicable existing source provisions of this subpart on the date such unit meets the definition of an EGU subject to this subpart.

(e) If you own or operate an electric steam generating unit that is exempted from this subpart under §63.9983(d), if the manner of operating the unit changes such that the combustion of waste is discontinued and the unit becomes a coal-fired or oil-fired EGU (as defined in §63.10042), you must be in compliance with this subpart on April 16, 2015 or on the effective date of the switch from waste combustion to coal or oil combustion, whichever is later.

(f) You must demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable date in paragraph (a), (b), (c), (d), or (e) of this section.

§63.9985 What is a new EGU?

(a) A new EGU is an EGU that meets any of the criteria specified in paragraph (a)(1) through (a)(2) of this section.

(1) An EGU that commenced construction after May 3, 2011.

(2) An EGU that commenced reconstruction after May 3, 2011.

(b) [Reserved]

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23402, Apr. 19, 2012]

EMISSION LIMITATIONS AND WORK PRACTICE STANDARDS

§63.9990 What are the subcategories of EGUs?

(a) Coal-fired EGUs are subcategorized as defined in paragraphs (a)(1) through (a)(2) of this section and as defined in §63.10042.

(1) EGUs designed for coal with a heating value greater than or equal to 8,300 Btu/lb, and

(2) EGUs designed for low rank virgin coal.

(b) Oil-fired EGUs are subcategorized as noted in paragraphs (b)(1) through (b)(4) of this section and as defined in §63.10042.

(1) Continental liquid oil-fired EGUs

(2) Non-continental liquid oil-fired EGUs,

(3) Limited-use liquid oil-fired EGUs, and

(4) EGUs designed to burn solid oil-derived fuel.

(c) IGCC units combusting either gasified coal or gasified solid oil-derived fuel. For purposes of compliance, monitoring, recordkeeping, and reporting requirements in this subpart, IGCC units are subject in the same manner as coal-fired units and solid oil-derived fuel-fired units, unless otherwise indicated.

§63.9991 What emission limitations, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section. You must meet these requirements at all times.

(1) You must meet each emission limit and work practice standard in Table 1 through 3 to this subpart that applies to your EGU, for each EGU at your source, except as provided under §63.10009.

(2) You must meet each operating limit in Table 4 to this subpart that applies to your EGU.

(b) As provided in §63.6(g), the Administrator may approve use of an alternative to the work practice standards in this section.

(c) You may use the alternate SO₂ limit in Tables 1 and 2 to this subpart only if your EGU:

(1) Has a system using wet or dry flue gas desulfurization technology and SO₂ continuous emissions monitoring system (CEMS) installed on the unit; and

(2) At all times, you operate the wet or dry flue gas desulfurization technology installed on the unit consistent with §63.10000(b).

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23402, Apr. 19, 2012]

GENERAL COMPLIANCE REQUIREMENTS

§63.10000 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits and operating limits in this subpart. These limits apply to you at all times except during periods of startup and shutdown; however, for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs, you are required to meet the work practice requirements in Table 3 to this subpart during periods of startup or shutdown.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(c)(1) For coal-fired units, IGCC units, and solid oil-derived fuel-fired units, initial performance testing is required for all pollutants, to demonstrate compliance with the applicable emission limits.

(i) For a coal-fired or solid oil-derived fuel-fired EGU or IGCC EGU, you may conduct the initial performance testing in accordance with §63.10005(h), to determine whether the unit qualifies as a low emitting EGU (LEE) for one or more applicable emissions limits, with two exceptions:

(A) You may not pursue the LEE option if your coal-fired, IGCC, or solid oil-derived fuel-fired EGU is equipped with an acid gas scrubber and has a main stack and bypass stack exhaust configuration, and

(B) You may not pursue the LEE option for Hg if your coal-fired, solid oil-derived fuel-fired EGU or IGCC EGU is new.

(ii) For a qualifying LEE for Hg emissions limits, you must conduct a 30-day performance test using Method 30B at least once every 12 calendar months to demonstrate continued LEE status.

(iii) For a qualifying LEE of any other applicable emissions limits, you must conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status.

(iv) If your coal-fired or solid oil derived fuel-fired EGU or IGCC EGU does not qualify as a LEE for total non-mercury HAP metals, individual non-mercury HAP metals, or filterable particulate matter (PM), you must demonstrate compliance through an initial performance test and you must monitor continuous performance through either use of a particulate matter continuous parametric monitoring system (PM CPMS), a PM CEMS, or, for an existing EGU, compliance performance testing repeated quarterly.

(v) If your coal-fired or solid oil-derived fuel-fired EGU does not qualify as a LEE for hydrogen chloride (HCl), you may demonstrate initial and continuous compliance through use of an HCl CEMS, installed and operated in accordance with Appendix B to this subpart. As an alternative to HCl CEMS, you may demonstrate initial and continuous compliance by conducting an initial and periodic quarterly performance stack test for HCl. If your EGU uses wet or dry flue gas desulfurization technology (this includes limestone injection into a fluidized bed combustion unit), you may apply a second alternative to HCl CEMS by installing and operating a sulfur dioxide (SO₂) CEMS installed and operated in accordance with part 75 of this chapter to demonstrate compliance with the applicable SO₂ emissions limit.

(vi) If your coal-fired or solid oil-derived fuel-fired EGU does not qualify as a LEE for Hg, you must demonstrate initial and continuous compliance through use of a Hg CEMS or a sorbent trap monitoring system, in accordance with appendix A to this subpart.

(2) For liquid oil-fired EGUs, except limited use liquid oil-fired EGUs, initial performance testing is required for all pollutants, to demonstrate compliance with the applicable emission limits.

(i) For an existing liquid oil-fired unit, you may conduct the performance testing in accordance with §63.10005(h), to determine whether the unit qualifies as a LEE for one or more pollutants. For a qualifying LEE for Hg emissions limits, you must conduct a 30-day performance test using Method 30B at least once every 12 calendar months to demonstrate continued LEE status. For a qualifying LEE of any other applicable emissions limits, you must conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status.

(ii) If your liquid oil-fired unit does not qualify as a LEE for total HAP metals (including mercury), individual metals (including mercury), or filterable PM you must demonstrate compliance through an initial performance test and you must monitor continuous performance through either use of a PM CPMS, a PM CEMS, or, for an existing EGU, performance testing conducted quarterly.

(iii) If your existing liquid oil-fired unit does not qualify as a LEE for hydrogen chloride (HCl) or for hydrogen fluoride (HF), you may demonstrate initial and continuous compliance through use of an HCl CEMS, an HF CEMS, or an HCl and HF CEMS, installed and operated in accordance with Appendix B to this rule. As an alternative to HCl CEMS, HF CEMS, or HCl and HF CEMS, you may demonstrate initial and continuous compliance by conducting periodic quarterly performance stack tests for HCl and HF. If you elect to demonstrate compliance through quarterly performance testing, then you must also develop a site-specific monitoring plan to ensure that the operations of the unit remain consistent with those during the performance test. As another alternative, you may measure or obtain, and keep records of, fuel moisture content; as long as fuel moisture does not exceed 1.0 percent by weight, you need not conduct other HCl or HF monitoring or testing.

(iv) If your unit qualifies as a limited-use liquid oil-fired as defined in §63.10042, then you are not subject to the emission limits in Tables 1 and 2, but you must comply with the performance tune-up work practice requirements in Table 3.

(d)(1) If you demonstrate compliance with any applicable emissions limit through use of a continuous monitoring system (CMS), where a CMS includes a continuous parameter monitoring system (CPMS) as well as a continuous emissions monitoring system (CEMS), you must develop a site-specific monitoring plan and submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation (where applicable) of your CMS. This requirement also applies to you if you petition the Administrator for alternative monitoring parameters under §63.8(f). This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS and CPMS prepared under appendix B to part 60 or part 75 of this chapter, and that meet the requirements of §63.10010. Using the process described in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this paragraph of this section and, if approved, include those in your site-specific monitoring plan. The monitoring plan must address the provisions in paragraphs (d)(2) through (5) of this section.

(2) The site-specific monitoring plan shall include the information specified in paragraphs (d)(5)(i) through (d)(5)(vii) of this section. Alternatively, the requirements of paragraphs (d)(5)(i) through (d)(5)(vii) are considered to be met for a particular CMS or sorbent trap monitoring system if:

(i) The CMS or sorbent trap monitoring system is installed, certified, maintained, operated, and quality-assured either according to part 75 of this chapter, or appendix A or B to this subpart; and

(ii) The recordkeeping and reporting requirements of part 75 of this chapter, or appendix A or B to this subpart, that pertain to the CMS are met.

(3) If requested by the Administrator, you must submit the monitoring plan (or relevant portion of the plan) at least 60 days before the initial performance evaluation of a particular CMS, except where the CMS has already undergone a performance evaluation that meets the requirements of §63.10010 (e.g., if the CMS was previously certified under another program).

(4) You must operate and maintain the CMS according to the site-specific monitoring plan.

(5) The provisions of the site-specific monitoring plan must address the following items:

(i) Installation of the CMS or sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See §63.10010(a) for further details. For PM CPMS installations, follow the procedures in §63.10010(h).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

(iii) Schedule for conducting initial and periodic performance evaluations.

(iv) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of §63.8(d).

(v) On-going operation and maintenance procedures, in accordance with the general requirements of §§63.8(c)(1)(ii), (c)(3), and (c)(4)(ii).

(vi) Conditions that define a CMS that is out of control consistent with §63.8(c)(7)(i) and for responding to out of control periods consistent with §§63.8(c)(7)(ii) and (c)(8).

(vii) On-going recordkeeping and reporting procedures, in accordance with the general requirements of §§63.10(c), (e)(1), and (e)(2)(i), or as specifically required under this subpart.

(e) As part of your demonstration of continuous compliance, you must perform periodic tune-ups of your EGU(s), according to §63.10021(e).

(f) You are subject to the requirements of this subpart for at least 6 months following the last date you met the definition of an EGU subject to this subpart (e.g., 6 months after a cogeneration unit provided more than one third of its potential electrical output capacity and more than 25 megawatts electrical output to any power distribution system for sale). You may opt to remain subject to the provisions of this subpart beyond 6 months after the last date you met the definition of an EGU subject to this subpart, unless you are a solid waste incineration unit subject to standards under CAA section 129 (e.g., 40 CFR Part 60, Subpart CCCC (New Source Performance Standards (NSPS) for Commercial and Industrial Solid Waste Incineration Units, or Subpart DDDD (Emissions Guidelines (EG) for Existing Commercial and Industrial Solid Waste Incineration Units). Notwithstanding the provisions of this subpart, an EGU that starts combusting solid waste is immediately subject to standards under CAA section 129 and the EGU remains subject to those standards until the EGU no longer meets the definition of a solid waste incineration unit consistent with the provisions of the applicable CAA section 129 standards.

(g) If you no longer meet the definition of an EGU subject to this subpart you must be in compliance with any newly applicable standards on the date you are no longer subject to this subpart. The date you are no longer subject to this subpart is a date selected by you, that must be at least 6 months from the date that you last met the definition of an EGU subject to this subpart or the date you begin combusting solid waste, consistent with §63.9983(d). Your source must remain in compliance with this subpart until the date you select to cease complying with this subpart or the date you begin combusting solid waste, whichever is earlier.

(h)(1) If you own or operate an EGU that does not meet the definition of an EGU subject to this subpart on April 16, 2015, and you commence or recommence operations that cause you to meet the definition of an EGU subject to this subpart, you are subject to the provisions of this subpart, including, but not limited to, the emission limitations and the monitoring requirements, as of the first day you meet the definition of an EGU subject to this subpart. You must complete all initial compliance demonstrations for this subpart applicable to your EGU within 180 days after you commence or recommence operations that cause you to meet the definition of an EGU subject to this subpart.

(2) You must provide 30 days prior notice of the date you intend to commence or recommence operations that cause you to meet the definition of an EGU subject to this subpart. The notification must identify:

(i) The name of the owner or operator of the EGU, the location of the facility, the unit(s) that will commence or recommence operations that will cause the unit(s) to meet the definition of an EGU subject to this subpart, and the date of the notice;

(ii) The 40 CFR part 60, part 62, or part 63 subpart and subcategory currently applicable to your unit(s), and the subcategory of this subpart that will be applicable after you commence or recommence operation that will cause the unit(s) to meet the definition of an EGU subject to this subpart;

(iii) The date on which you became subject to the currently applicable emission limits;

(iv) The date upon which you will commence or recommence operations that will cause your unit to meet the definition of an EGU subject to this subpart, consistent with paragraph (f) of this section.

(i)(1) If you own or operate an EGU subject to this subpart, and it has been at least 6 months since you operated in a manner that caused you to meet the definition of an EGU subject to this subpart, you may, consistent with paragraph (g) of this section, select the date on which your EGU will no longer be subject to this subpart. You must be in compliance with any newly applicable section 112 or 129 standards on the date you selected.

(2) You must provide 30 days prior notice of the date your EGU will cease complying with this subpart. The notification must identify:

(i) The name of the owner or operator of the EGU(s), the location of the facility, the EGU(s) that will cease complying with this subpart, and the date of the notice;

(ii) The currently applicable subcategory under this subpart, and any 40 CFR part 60, part 62, or part 63 subpart and subcategory that will be applicable after you cease complying with this subpart;

(iii) The date on which you became subject to this subpart;

(iv) The date upon which you will cease complying with this subpart, consistent with paragraph (g) of this section.

(j) All air pollution control equipment necessary for compliance with any newly applicable emissions limits which apply as a result of the cessation or commencement or recommencement of operations that cause your EGU to meet the definition of an EGU subject to this subpart must be installed and operational as of the date your source ceases to be or becomes subject to this subpart.

(k) All monitoring systems necessary for compliance with any newly applicable monitoring requirements which apply as a result of the cessation or commencement or recommencement of operations that cause your EGU to meet the definition of an EGU subject to this subpart must be installed and operational as of the date your source ceases to be or becomes subject to this subpart. All calibration and drift checks must be performed as of the date your source ceases to be or becomes subject to this subpart. You must also comply with provisions of §§63.10010, 63.10020, and 63.10021 of this subpart. Relative accuracy tests must be performed as of the performance test deadline for PM CEMS, if applicable. Relative accuracy testing for other CEMS need not be repeated if that testing was previously performed consistent with CAA section 112 monitoring requirements or monitoring requirements under this subpart.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23402, Apr. 19, 2012; 78 FR 24084, Apr. 24, 2013]

§63.10001 Affirmative defense for exceedence of emission limit during malfunction.

In response to an action to enforce the standards set forth in §63.9991 you may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The excess emissions:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner, and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

- (4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
- (5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and
- (6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and
- (7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and
- (8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and
- (9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.
- (b) *Notification.* The owner or operator of the affected source experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction or, if it is not possible to determine within two business days whether the malfunction caused or contributed to an exceedance, no later than two business days after the owner or operator knew or should have known that the malfunction caused or contributed to an exceedance, but, in no event later than two business days after the end of the averaging period, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in §63.9991 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

TESTING AND INITIAL COMPLIANCE REQUIREMENTS

§63.10005 What are my initial compliance requirements and by what date must I conduct them?

(a) *General requirements.* For each of your affected EGUs, you must demonstrate initial compliance with each applicable emissions limit in Table 1 or 2 of this subpart through performance testing. Where two emissions limits are specified for a particular pollutant (e.g., a heat input-based limit in lb/MMBtu and an electrical output-based limit in lb/MWh), you may demonstrate compliance with either emission limit. For a particular compliance demonstration, you may be required to conduct one or more of the following activities in conjunction with performance testing: collection of hourly electrical load data (megawatts); establishment of operating limits according to §63.10011 and Tables 4 and 7 to this subpart; and CMS performance evaluations. In all cases, you must demonstrate initial compliance no later than the applicable date in paragraph (f) of this section for tune-up work practices for existing EGUs, in §63.9984 for other requirements for existing EGUs, and in paragraph (g) of this section for all requirements for new EGUs.

(1) To demonstrate initial compliance with an applicable emissions limit in Table 1 or 2 to this subpart using stack testing, the initial performance test generally consists of three runs at specified process operating conditions using approved methods. If you are required to establish operating limits (see paragraph (d) of this section and Table 4 to this subpart), you must collect all applicable parametric data during the performance test period. Also, if you choose to comply with an electrical output-based emission limit, you must collect hourly electrical load data during the test period.

(2) To demonstrate initial compliance using either a CMS that measures HAP concentrations directly (i.e., an Hg, HCl, or HF CEMS, or a sorbent trap monitoring system) or an SO₂ or PM CEMS, the initial performance test consists

of 30 boiler operating days of data collected by the initial compliance demonstration date specified in §63.10005 with the certified monitoring system.

(i) The 30-boiler operating day CMS performance test must demonstrate compliance with the applicable Hg, HCl, HF, PM, or SO₂ emissions limit in Table 1 or 2 to this subpart.

(ii) If you choose to comply with an electrical output-based emission limit, you must collect hourly electrical load data during the performance test period.

(b) *Performance testing requirements.* If you choose to use performance testing to demonstrate initial compliance with the applicable emissions limits in Tables 1 and 2 to this subpart for your EGUs, you must conduct the tests according to §63.10007 and Table 5 to this subpart. For the purposes of the initial compliance demonstration, you may use test data and results from a performance test conducted prior to the date on which compliance is required as specified in §63.9984, provided that the following conditions are fully met:

(1) For a performance test based on stack test data, the test was conducted no more than 12 calendar months prior to the date on which compliance is required as specified in §63.9984;

(2) For a performance test based on data from a certified CEMS or sorbent trap monitoring system, the test consists of all valid CMS data recorded in the 30 boiler operating days immediately preceding that date;

(3) The performance test was conducted in accordance with all applicable requirements in §63.10007 and Table 5 to this subpart;

(4) A record of all parameters needed to convert pollutant concentrations to units of the emission standard (e.g., stack flow rate, diluent gas concentrations, hourly electrical loads) is available for the entire performance test period; and

(5) For each performance test based on stack test data, you certify, and keep documentation demonstrating, that the EGU configuration, control devices, and fuel(s) have remained consistent with conditions since the prior performance test was conducted.

(c) *Operating limits.* In accordance with §63.10010 and Table 4 to this subpart, you may be required to establish operating limits using PM CPMS and using site-specific monitoring for certain liquid oil-fired units as part of your initial compliance demonstration.

(d) *CMS requirements.* If, for a particular emission or operating limit, you are required to (or elect to) demonstrate initial compliance using a continuous monitoring system, the CMS must pass a performance evaluation prior to the initial compliance demonstration. If a CMS has been previously certified under another state or federal program and is continuing to meet the on-going quality-assurance (QA) requirements of that program, then, provided that the certification and QA provisions of that program meet the applicable requirements of §§63.10010(b) through (h), an additional performance evaluation of the CMS is not required under this subpart.

(1) For an affected coal-fired, solid oil-derived fuel-fired, or liquid oil-fired EGU, you may demonstrate initial compliance with the applicable SO₂, HCl, or HF emissions limit in Table 1 or 2 to this subpart through use of an SO₂, HCl, or HF CEMS installed and operated in accordance with part 75 of this chapter or Appendix B to this subpart, as applicable. You may also demonstrate compliance with a filterable PM emission limit in Table 1 or 2 to this subpart through use of a PM CEMS installed, certified, and operated in accordance with §63.10010(i). Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS data, expressed in units of the standard (see §63.10007(e)), meets the applicable SO₂, PM, HCl, or HF emissions limit in Table 1 or 2 to this subpart. Use Equation 19-19 of Method 19 in appendix A-7 to part 60 of this chapter to calculate the 30-boiler operating day average emissions rate. (NOTE: For this calculation, the term E_{hj} in Equation 19-19 must be in the same units of measure as the applicable HCl or HF emission limit in Table 1 or 2 to this subpart).

(2) For affected coal-fired or solid oil-derived fuel-fired EGUs that demonstrate compliance with the applicable emission limits for total non-mercury HAP metals, individual non-mercury HAP metals, total HAP metals, individual HAP metals, or filterable PM listed in Table 1 or 2 to this subpart using initial performance testing and continuous monitoring with PM CPMS:

(i) You must demonstrate initial compliance no later than the applicable date specified in §63.9984(f) for existing EGUs and in paragraph (g) of this section for new EGUs.

(ii) You must demonstrate continuous compliance with the PM CPMS site-specific operating limit that corresponds to the results of the performance test demonstrating compliance with the emission limit with which you choose to comply.

(iii) You must repeat the performance test annually for the selected pollutant emissions limit and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(3) For affected EGUs that are either required to or elect to demonstrate initial compliance with the applicable Hg emission limit in Table 1 or 2 of this subpart using Hg CEMS or sorbent trap monitoring systems, initial compliance must be demonstrated no later than the applicable date specified in §63.9984(f) for existing EGUs and in paragraph (g) of this section for new EGUs. Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS (or sorbent trap monitoring system) data, expressed in units of the standard (see section 6.2 of appendix A to this subpart), meets the applicable Hg emission limit in Table 1 or 2 to this subpart.

(4) For affected liquid oil-fired EGUs that demonstrate compliance with the applicable emission limits for HCl or HF listed in Table 1 or 2 to this subpart using quarterly testing and continuous monitoring with a CMS:

(i) You must demonstrate initial compliance no later than the applicable date specified in §63.9984 for existing EGUs and in paragraph (g) of this section for new EGUs.

(ii) You must demonstrate continuous compliance with the CMS site-specific operating limit that corresponds to the results of the performance test demonstrating compliance with the HCl or HF emissions limit.

(iii) You must repeat the performance test annually for the HCl or HF emissions limit and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

(e) *Tune-ups.* All affected EGUs are subject to the work practice standards in Table 3 of this subpart. As part of your initial compliance demonstration, you must conduct a performance tune-up of your EGU according to §63.10021(e).

(f) For existing affected sources a tune-up may occur prior to April 16, 2012, so that existing sources without neural networks have up to 42 calendar months (3 years from promulgation plus 180 days) or, in the case of units employing neural network combustion controls, up to 54 calendar months (48 months from promulgation plus 180 days) after the date that is specified for your source in §63.9984 and according to the applicable provisions in §63.7(a)(2) as cited in Table 9 to this subpart to demonstrate compliance with this requirement. If a tune-up occurs prior to such date, the source must maintain adequate records to show that the tune-up met the requirements of this standard.

(g) If your new or reconstructed affected source commenced construction or reconstruction between May 3, 2011, and July 2, 2011, you must demonstrate initial compliance with either the proposed emission limits or the promulgated emission limits no later than 180 days after April 16, 2012 or within 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(1) For the new or reconstructed affected source described in this paragraph (g), if you choose to comply with the proposed emission limits when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits within 3 years after April 16, 2012 or within 3 years after startup of the affected source, whichever is later.

(2) If your new or reconstructed affected source commences construction or reconstruction after April 16, 2012, you must demonstrate initial compliance with the promulgated emission limits no later than 180 days after startup of the source.

(h) *Low emitting EGUs.* The provisions of this paragraph (h) apply to pollutants with emissions limits from new EGUs except Hg and to all pollutants with emissions limits from existing EGUs. You may not pursue this compliance option if your existing EGU is equipped with an acid gas scrubber and has a main stack and bypass stack exhaust configuration.

(1) An EGU may qualify for low emitting EGU (LEE) status for Hg, HCl, HF, filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals (or total HAP metals or individual HAP metals, for liquid oil-fired EGUs) if you collect performance test data that meet the requirements of this paragraph (h), and if those data demonstrate:

(i) For all pollutants except Hg, performance test emissions results less than 50 percent of the applicable emissions limits in Table 1 or 2 to this subpart for all required testing for 3 consecutive years; or

(ii) For Hg emissions from an existing EGU, either:

(A) Average emissions less than 10 percent of the applicable Hg emissions limit in Table 2 to this subpart (expressed either in units of lb/TBtu or lb/GWh); or

(B) Potential Hg mass emissions of 29.0 or fewer pounds per year and compliance with the applicable Hg emission limit in Table 2 to this subpart (expressed either in units of lb/TBtu or lb/GWh).

(2) For all pollutants except Hg, you must conduct all required performance tests described in §63.10007 to demonstrate that a unit qualifies for LEE status.

(i) When conducting emissions testing to demonstrate LEE status, you must increase the minimum sample volume specified in Table 1 or 2 nominally by a factor of two.

(ii) Follow the instructions in §63.10007(e) and Table 5 to this subpart to convert the test data to the units of the applicable standard.

(3) For Hg, you must conduct a 30-boiler operating day performance test using Method 30B in appendix A-8 to part 60 of this chapter to determine whether a unit qualifies for LEE status. Locate the Method 30B sampling probe tip at a point within the 10 percent centroidal area of the duct at a location that meets Method 1 in appendix A-1 to part 60 of this chapter and conduct at least three nominally equal length test runs over the 30-boiler operating day test period. Collect Hg emissions data continuously over the entire test period (except when changing sorbent traps or performing required reference method QA procedures), under all process operating conditions. You may use a pair of sorbent traps to sample the stack gas for no more than 10 days.

(i) Depending on whether you intend to assess LEE status for Hg in terms of the lb/TBtu or lb/GWh emission limit in Table 2 to this subpart or in terms of the annual Hg mass emissions limit of 29.0 lb/year, you will have to collect some or all of the following data during the 30-boiler operating day test period (see paragraph (h)(3)(iii) of this section):

(A) Diluent gas (CO₂ or O₂) data, using either Method 3A in appendix A-3 to part 60 of this chapter or a diluent gas monitor that has been certified according to part 75 of this chapter.

(B) Stack gas flow rate data, using either Method 2, 2F, or 2G in appendices A-1 and A-2 to part 60 of this chapter, or a flow rate monitor that has been certified according to part 75 of this chapter.

(C) Stack gas moisture content data, using either Method 4 in appendix A-1 to part 60 of this chapter, or a moisture monitoring system that has been certified according to part 75 of this chapter. Alternatively, an appropriate fuel-specific default moisture value from §75.11(b) of this chapter may be used in the calculations or you may petition the Administrator under §75.66 of this chapter for use of a default moisture value for non-coal-fired units.

(D) Hourly electrical load data (megawatts), from facility records.

(ii) If you use CEMS to measure CO₂ (or O₂) concentration, and/or flow rate, and/or moisture, record hourly average values of each parameter throughout the 30-boiler operating day test period. If you opt to use EPA reference methods rather than CEMS for any parameter, you must perform at least one representative test run on each operating day of the test period, using the applicable reference method.

(iii) Calculate the average Hg concentration, in µg/m³ (dry basis), for the 30-boiler operating day performance test, as the arithmetic average of all Method 30B sorbent trap results. Also calculate, as applicable, the average values of

CO₂ or O₂ concentration, stack gas flow rate, stack gas moisture content, and electrical load for the test period.
Then:

(A) To express the test results in units of lb/TBtu, follow the procedures in §63.10007(e). Use the average Hg concentration and diluent gas values in the calculations.

(B) To express the test results in units of lb/GWh, use Equations A-3 and A-4 in section 6.2.2 of appendix A to this subpart, replacing the hourly values “C_h”, “Q_h”, “B_{ws}” and “(MW)_h” with the average values of these parameters from the performance test.

(C) To calculate pounds of Hg per year, use one of the following methods:

(1) Multiply the average lb/TBtu Hg emission rate (determined according to paragraph (h)(3)(iii)(A) of this section) by the maximum potential annual heat input to the unit (TBtu), which is equal to the maximum rated unit heat input (TBtu/hr) times 8,760 hours. If the maximum rated heat input value is expressed in units of MMBtu/hr, multiply it by 10⁻⁶ to convert it to TBtu/hr; or

(2) Multiply the average lb/GWh Hg emission rate (determined according to paragraph (h)(3)(iii)(B) of this section) by the maximum potential annual electricity generation (GWh), which is equal to the maximum rated electrical output of the unit (GW) times 8,760 hours. If the maximum rated electrical output value is expressed in units of MW, multiply it by 10⁻³ to convert it to GW; or

(3) If an EGU has a federally-enforceable permit limit on either the annual heat input or the number of annual operating hours, you may modify the calculations in paragraph (h)(3)(iii)(C)(1) of this section by replacing the maximum potential annual heat input or 8,760 unit operating hours with the permit limit on annual heat input or operating hours (as applicable).

(4) For a group of affected units that vent to a common stack, you may either assess LEE status for the units individually by performing a separate emission test of each unit in the duct leading from the unit to the common stack, or you may perform a single emission test in the common stack. If you choose the common stack testing option, the units in the configuration qualify for LEE status if:

(i) The emission rate measured at the common stack is less than 50 percent (10 percent for Hg) of the applicable emission limit in Table 1 or 2 to this subpart; or

(ii) For Hg from an existing EGU, the applicable Hg emission limit in Table 2 to this subpart is met and the potential annual mass emissions, calculated according to paragraph (h)(3)(iii) of this section (with some modifications), are less than or equal to 29.0 pounds times the number of units sharing the common stack. Base your calculations on the combined heat input capacity of all units sharing the stack (*i.e.*, either the combined maximum rated value or, if applicable, a lower combined value restricted by permit conditions or operating hours).

(5) For an affected unit with a multiple stack or duct configuration in which the exhaust stacks or ducts are downstream of all emission control devices, you must perform a separate emission test in each stack or duct. The unit qualifies for LEE status if:

(i) The emission rate, based on all test runs performed at all of the stacks or ducts, is less than 50 percent (10 percent for Hg) of the applicable emission limit in Table 1 or 2 to this subpart; or

(ii) For Hg from an existing EGU, the applicable Hg emission limit in Table 2 to this subpart is met and the potential annual mass emissions, calculated according to paragraph (h)(3)(iii) of this section, are less than or equal to 29.0 pounds. Use the average Hg emission rate from paragraph (h)(5)(i) of this section in your calculations.

(i) *Liquid-oil fuel moisture measurement.* If your EGU combusts liquid fuels, if your fuel moisture content is no greater than 1.0 percent by weight, and if you would like to demonstrate initial and ongoing compliance with HCl and HF emissions limits, you must meet the requirements of paragraphs (i)(1) through (5) of this section.

(1) Measure fuel moisture content of each shipment of fuel if your fuel arrives on a batch basis; or

- (2) Measure fuel moisture content daily if your fuel arrives on a continuous basis; or
- (3) Obtain and maintain a fuel moisture certification from your fuel supplier.
- (4) Use one of the following methods to determine fuel moisture content:
 - (i) ASTM D95-05 (Reapproved 2010), "Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation," or
 - (ii) ASTM D4006-11, "Standard Test Method for Water in Crude Oil by Distillation," including Annex A1 and Appendix A1.
 - (iii) ASTM D4177-95 (Reapproved 2010), "Standard Practice for Automatic Sampling of Petroleum and Petroleum Products," including Annexes A1 through A6 and Appendices X1 and X2, or
 - (iv) ASTM D4057-06 (Reapproved 2011), "Standard Practice for Manual Sampling of Petroleum and Petroleum Products," including Annex A1.
- (5) Use one of the following methods to obtain fuel moisture samples:
 - (i) ASTM D4177-95 (Reapproved 2010), "Standard Practice for Automatic Sampling of Petroleum and Petroleum Products," including Annexes A1 through A6 and Appendices X1 and X2, or
 - (ii) ASTM D4057-06 (Reapproved 2011), "Standard Practice for Manual Sampling of Petroleum and Petroleum Products," including Annex A1.
- (6) Should the moisture in your liquid fuel be more than 1.0 percent by weight, you must
 - (i) Conduct HCl and HF emissions testing quarterly (and monitor site-specific operating parameters as provided in §63.10000(c)(2)(iii) or
 - (ii) Use an HCl CEMS and/or HF CEMS.
 - (j) Startup and shutdown for coal-fired or solid oil derived-fired units. You must follow the requirements given in Table 3 to this subpart.
 - (k) You must submit a Notification of Compliance Status summarizing the results of your initial compliance demonstration, as provided in §63.10030.

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§63.10006 When must I conduct subsequent performance tests or tune-ups?

- (a) For liquid oil-fired, solid oil-derived fuel-fired and coal-fired EGUs and IGCC units using PM CPMS to monitor continuous performance with an applicable emission limit as provided for under §63.10000(c), you must conduct all applicable performance tests according to Table 5 to this subpart and §63.10007 at least every year.
- (b) For affected units meeting the LEE requirements of §63.10005(h), you must repeat the performance test once every 3 years (once every year for Hg) according to Table 5 and §63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur:
 - (1) For all pollutant emission limits except for Hg, you must conduct emissions testing quarterly, except as otherwise provided in §63.10021(d)(1).

(2) For Hg, you must install, certify, maintain, and operate a Hg CEMS or a sorbent trap monitoring system in accordance with appendix A to this subpart, within 6 calendar months of losing LEE eligibility. Until the Hg CEMS or sorbent trap monitoring system is installed, certified, and operating, you must conduct Hg emissions testing quarterly, except as otherwise provided in §63.10021(d)(1). You must have 3 calendar years of testing and CEMS or sorbent trap monitoring system data that satisfy the LEE emissions criteria to reestablish LEE status.

(c) Except where paragraphs (a) or (b) of this section apply, or where you install, certify, and operate a PM CEMS to demonstrate compliance with a filterable PM emissions limit, for liquid oil-, solid oil-derived fuel-, coal-fired and IGCC EGUs, you must conduct all applicable periodic emissions tests for filterable PM, individual, or total HAP metals emissions according to Table 5 to this subpart, §63.10007, and §63.10000(c), except as otherwise provided in §63.10021(d)(1).

(d) Except where paragraph (b) of this section applies, for solid oil-derived fuel- and coal-fired EGUs that do not use either an HCl CEMS to monitor compliance with the HCl limit or an SO₂ CEMS to monitor compliance with the alternate equivalent SO₂ emission limit, you must conduct all applicable periodic HCl emissions tests according to Table 5 to this subpart and §63.10007 at least quarterly, except as otherwise provided in §63.10021(d)(1).

(e) Except where paragraph (b) of this section applies, for liquid oil-fired EGUs without HCl CEMS, HF CEMS, or HCl and HF CEMS, you must conduct all applicable emissions tests for HCl, HF, or HCl and HF emissions according to Table 5 to this subpart and §63.10007 at least quarterly, except as otherwise provided in §63.10021(d)(1), and conduct site-specific monitoring under a plan as provided for in §63.10000(c)(2)(iii).

(f) Unless you follow the requirements listed in paragraphs (g) and (h) of this section, performance tests required at least every 3 calendar years must be completed within 35 to 37 calendar months after the previous performance test; performance tests required at least every year must be completed within 11 to 13 calendar months after the previous performance test; and performance tests required at least quarterly must be completed within 80 to 100 calendar days after the previous performance test, except as otherwise provided in §63.10021(d)(1).

(g) If you elect to demonstrate compliance using emissions averaging under §63.10009, you must continue to conduct performance stack tests at the appropriate frequency given in section (c) through (f) of this section.

(h) If a performance test on a non-mercury LEE shows emissions in excess of 50 percent of the emission limit and if you choose to reapply for LEE status, you must conduct performance tests at the appropriate frequency given in section (c) through (e) of this section for that pollutant until all performance tests over a consecutive 3-year period show compliance with the LEE criteria.

(i) If you are required to meet an applicable tune-up work practice standard, you must conduct a performance tune-up according to §63.10021(e).

(1) For EGUs not employing neural network combustion optimization during normal operation, each performance tune-up specified in §63.10021(e) must be no more than 36 calendar months after the previous performance tune-up.

(2) For EGUs employing neural network combustion optimization systems during normal operation, each performance tune-up specified in §63.10021(e) must be no more than 48 calendar months after the previous performance tune-up.

(j) You must report the results of performance tests and performance tune-ups within 60 days after the completion of the performance tests and performance tune-ups. The reports for all subsequent performance tests must include all applicable information required in §63.10031.

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§63.10007 What methods and other procedures must I use for the performance tests?

(a) Except as otherwise provided in this section, you must conduct all required performance tests according to §63.7(d), (e), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c).

(1) If you use CEMS (Hg, HCl, SO₂, or other) to determine compliance with a 30-boiler operating day rolling average emission limit, you must collect data for all nonexempt unit operating conditions (see §63.10011(g) and Table 3 to this subpart).

(2) If you conduct performance testing with test methods in lieu of continuous monitoring, operate the unit at maximum normal operating load conditions during each periodic (e.g., quarterly) performance test. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run.

(3) For establishing operating limits with particulate matter continuous parametric monitoring system (PM CPMS) to demonstrate compliance with a PM or non Hg metals emissions limit, operate the unit at maximum normal operating load conditions during the performance test period. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run.

(b) You must conduct each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data (or sorbent trap monitoring system data), and 30-boiler operating day Hg emission tests for LEE qualification) according to the requirements in Table 5 to this subpart.

(c) If you choose the filterable PM method to comply with the PM emission limit and demonstrate continuous performance using a PM CPMS as provided for in §63.10000(c), you must also establish an operating limit according to §63.10011(b), §63.10023, and Tables 4 and 6 to this subpart. Should you desire to have operating limits that correspond to loads other than maximum normal operating load, you must conduct testing at those other loads to determine the additional operating limits.

(d) Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, where the concept of test runs does not apply, you must conduct a minimum of three separate test runs for each performance test, as specified in §63.7(e)(3). Each test run must comply with the minimum applicable sampling time or volume specified in Table 1 or 2 to this subpart. Sections 63.10005(d) and (h), respectively, provide special instructions for conducting performance tests based on CEMS or sorbent trap monitoring systems, and for conducting emission tests for LEE qualification.

(e) To use the results of performance testing to determine compliance with the applicable emission limits in Table 1 or 2 to this subpart, proceed as follows:

(1) Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level.

(2) If the limits are expressed in lb/MMBtu or lb/TBtu, you must use the F-factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 in appendix A-7 to part 60 of this chapter. In cases where an appropriate F-factor is not listed in Table 19-2 of Method 19, you may use F-factors from Table 1 in section 3.3.5 of appendix F to part 75 of this chapter, or F-factors derived using the procedures in section 3.3.6 of appendix to part 75 of this chapter. Use the following factors to convert the pollutant concentrations measured during the initial performance tests to units of lb/scf, for use in the applicable Method 19 equations:

(i) Multiply SO₂ ppm by 1.66×10^{-7} ;

(ii) Multiply HCl ppm by 9.43×10^{-8} ;

(iii) Multiply HF ppm by 5.18×10^{-8} ;

(iv) Multiply HAP metals concentrations (mg/dscm) by 6.24×10^{-8} ; and

(v) Multiply Hg concentrations (µg/scm) by 6.24×10^{-11} .

(3) To determine compliance with emission limits expressed in lb/MWh or lb/GWh, you must first calculate the pollutant mass emission rate during the performance test, in units of lb/h. For Hg, if a CEMS or sorbent trap monitoring system is used, use Equation A-2 or A-3 in appendix A to this subpart (as applicable). In all other cases, use an equation that has the general form of Equation A-2 or A-3, replacing the value of K with 1.66×10^{-7} lb/scf-ppm for SO₂, 9.43×10^{-8} lb/scf-ppm for HCl (if an HCl CEMS is used), 5.18×10^{-8} lb/scf-ppm for HF (if an HF CEMS is used), or 6.24×10^{-8} lb-scm/mg-scf for HAP metals and for HCl and HF (when performance stack testing is used), and defining C_h as the average SO₂, HCl, or HF concentration in ppm, or the average HAP metals concentration in mg/dscm. This calculation requires stack gas volumetric flow rate (scfh) and (in some cases) moisture content data (see §§63.10005(h)(3) and 63.10010). Then, if the applicable emission limit is in units of lb/GWh, use Equation A-4 in appendix A to this subpart to calculate the pollutant emission rate in lb/GWh. In this calculation, define (M)_h as the calculated pollutant mass emission rate for the performance test (lb/h), and define (MW)_h as the average electrical load during the performance test (megawatts). If the applicable emission limit is in lb/MWh rather than lb/GWh, omit the 10³ term from Equation A-4 to determine the pollutant emission rate in lb/MWh.

(f) Upon request, you shall make available to the EPA Administrator such records as may be necessary to determine whether the performance tests have been done according to the requirements of this section.

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§63.10008 [Reserved]

§63.10009 May I use emissions averaging to comply with this subpart?

(a) *General eligibility.* (1) You may use emissions averaging as described in paragraph (a)(2) of this section as an alternative to meeting the requirements of §63.9991 for filterable PM, SO₂, HF, HCl, non-Hg HAP metals, or Hg on an EGU-specific basis if:

(i) You have more than one existing EGU in the same subcategory located at one or more contiguous properties, belonging to a single major industrial grouping, which are under common control of the same person (or persons under common control); and

(ii) You use CEMS (or sorbent trap monitoring systems for determining Hg emissions) or quarterly emissions testing for demonstrating compliance.

(2) You may demonstrate compliance by emissions averaging among the existing EGUs in the same subcategory, if your averaged Hg emissions for EGUs in the “unit designed for coal ≥8,300 Btu/lb” subcategory are equal to or less than 1.0 lb/TBtu or 1.1E-2 lb/GWh or if your averaged emissions of individual, other pollutants from other subcategories of such EGUs are equal to or less than the applicable emissions limit in Table 2, according to the procedures in this section. Note that except for Hg emissions from EGUs in the “unit designed for coal ≥8,300 Btu/lb” subcategory, the averaging time for emissions averaging for pollutants is 30 days (rolling daily) using data from CEMS or a combination of data from CEMS and manual performance testing. The averaging time for emissions averaging for Hg from EGUs in the “unit designed for coal ≥8,300 Btu/lb” subcategory is 90 days (rolling daily) using data from CEMS, sorbent trap monitoring, or a combination of monitoring data and data from manual performance testing. For the purposes of this paragraph, 30- (or 90-day) group boiler operating days is defined as a period during which at least one unit in the emissions averaging group has operated 30 (or 90) days. You must calculate the weighted average emissions rate for the group in accordance with the procedures in this paragraph using the data from all units in the group including any that operate fewer than 30 (or 90) days during the preceding 30 (or 90) group boiler days.

(i) You may choose to have your EGU emissions averaging group meet either the heat input basis (MMBtu or TBtu, as appropriate for the pollutant) or gross electrical output basis (MWh or GWh, as appropriate for the pollutant).

(ii) You may not mix bases within your EGU emissions averaging group.

(iii) You may use emissions averaging for affected units in different subcategories if the units vent to the atmosphere through a common stack (see paragraph (m) of this section).

(b) *Equations.* Use the following equations when performing calculations for your EGU emissions averaging group:

(1) Group eligibility equations.

$$WAERm = \frac{[\sum_{i=1}^p [\sum_{i=1}^n (Herm_i \times Rmm_i)]_p] + \sum_{i=1}^m (Ter_i \times Rmt_i)}{[\sum_{i=1}^p [\sum_{i=1}^n Rmm_i]_p] + \sum_{i=1}^m Rmt_i} \quad (Eq. 1a)$$

Where:

WAERm = Weighted average emissions rate maximum in terms of lb/heat input or lb/gross electrical output,

Herm_i = Hourly emissions rate (e.g., lb/MMBtu, lb/MWh) from CEMS or sorbent trap monitoring for hour i,

Rmm_i = Maximum rated heat input or gross electrical output of unit i in terms of heat input or gross electrical output,

p = number of EGUs in emissions averaging group that rely on CEMS,

n = number of hourly rates collected over 30-group boiler operating days,

Ter_i = Emissions rate from most recent test of unit i in terms of lb/heat input or lb/gross electrical output,

Rmt_i = Maximum rated heat input or gross electrical output of unit i in terms of lb/heat input or lb/gross electrical output, and

m = number of EGUs in emissions averaging group that rely on emissions testing.

$$WAERm = \frac{[\sum_{i=1}^p [\sum_{i=1}^n (Herm_i \times Smm_i \times Cfm_i)]_p] + \sum_{i=1}^m (Ter_i \times Smt_i \times Cft_i)}{[\sum_{i=1}^p [\sum_{i=1}^n Smm_i \times Cfm_i]_p] + \sum_{i=1}^m Smt_i \times Cft_i} \quad (Eq. 1b)$$

Where:

variables with similar names share the descriptions for Equation 1a,

Smm_i = maximum steam generation in units of pounds from unit i that uses CEMS or sorbent trap monitoring,

Cfm_i = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS or sorbent trap monitoring,

Smt_i = maximum steam generation in units of pounds from unit i that uses emissions testing, and

Cft_i = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing.

(2) Weighted 30-boiler operating day rolling average emissions rate equations for pollutants other than Hg. Use equation 2a or 2b to calculate the 30 day rolling average emissions daily.

$$WAER = \frac{\sum_{i=1}^p [\sum_{i=1}^n (Her_i \times Rm_i)]_p + \sum_{i=1}^m (Ter_i \times Rt_i)}{\sum_{i=1}^p [\sum_{i=1}^n (Rm_i)]_p + \sum_{i=1}^m Rt_i} \quad (Eq. 2a)$$

Where:

Her_i = hourly emission rate (e.g., lb/MMBtu, lb/MWh) from unit i's CEMS for the preceding 30-group boiler operating days,

Rm_i = hourly heat input or gross electrical output from unit i for the preceding 30-group boiler operating days,

p = number of EGUs in emissions averaging group that rely on CEMS or sorbent trap monitoring,

n = number of hourly rates collected over 30-group boiler operating days,

Ter_i = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output,

Rt_i = Total heat input or gross electrical output of unit i for the preceding 30-boiler operating days, and

m = number of EGUs in emissions averaging group that rely on emissions testing.

$$WAER = \frac{\sum_{i=1}^p [\sum_{j=1}^n (Her_i \times Sm_i \times Cfm_i)]_p + \sum_{i=1}^m (Ter_i \times St_i \times Cft_i)}{\sum_{i=1}^p [\sum_{j=1}^n (Sm_i \times Cfm_i)]_p + \sum_{i=1}^m (St_i \times Cft_i)} \quad (Eq. 2b)$$

Where:

variables with similar names share the descriptions for Equation 2a,

Sm_i = steam generation in units of pounds from unit i that uses CEMS for the preceding 30-group boiler operating days,

Cfm_i = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS from the preceding 30 group boiler operating days,

St_i = steam generation in units of pounds from unit i that uses emissions testing, and

Cft_i = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing.

(3) Weighted 90-boiler operating day rolling average emissions rate equations for Hg emissions from EGUs in the “coal-fired unit not low rank virgin coal” subcategory. Use equation 3a or 3b to calculate the 90-day rolling average emissions daily.

$$WAER = \frac{\sum_{i=1}^p [\sum_{j=1}^n (Her_i \times Rm_i)]_p + \sum_{i=1}^m (Ter_i \times Rt_i)}{\sum_{i=1}^p [\sum_{j=1}^n (Rm_i)]_p + \sum_{i=1}^m (Rt_i)} \quad (Eq. 3a)$$

Where:

Her_i = hourly emission rate from unit i's CEMS or Hg sorbent trap monitoring system for the preceding 90-group boiler operating days,

Rm_i = hourly heat input or gross electrical output from unit i for the preceding 90-group boiler operating days,

p = number of EGUs in emissions averaging group that rely on CEMS,

n = number of hourly rates collected over the 90-group boiler operating days,

Ter_i = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross electrical output,

Rt_i = Total heat input or gross electrical output of unit i for the preceding 90-boiler operating days, and

m = number of EGUs in emissions averaging group that rely on emissions testing.

$$WAER = \frac{\sum_{i=1}^p [\sum_{j=1}^n (Her_i \times Sm_i \times Cfm_i)]_p + \sum_{i=1}^m (Ter_i \times St_i \times Cft_i)}{\sum_{i=1}^p [\sum_{j=1}^n (Sm_i \times Cfm_i)]_p + \sum_{i=1}^m St_i \times Cft_i} \quad (Eq. 3b)$$

Where:

variables with similar names share the descriptions for Equation 2a,

Sm_i = steam generation in units of pounds from unit i that uses CEMS or a Hg sorbent trap monitoring for the preceding 90-group boiler operating days,

Cfm_i = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses CEMS or sorbent trap monitoring from the preceding 90-group boiler operating days,

St_i = steam generation in units of pounds from unit i that uses emissions testing, and

Cft_i = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross electrical output per pound of steam generated, from unit i that uses emissions testing.

(c) *Separate stack requirements.* For a group of two or more existing EGUs in the same subcategory that each vent to a separate stack, you may average filterable PM, SO₂, HF, HCl, non-Hg HAP metals, or Hg emissions to demonstrate compliance with the limits in Table 2 to this subpart if you satisfy the requirements in paragraphs (d) through (j) of this section.

(d) For each existing EGU in the averaging group:

(1) The emissions rate achieved during the initial performance test for the HAP being averaged must not exceed the emissions level that was being achieved 180 days after April 16, 2015, or the date on which emissions testing done to support your emissions averaging plan is complete (if the Administrator does not require submission and approval of your emissions averaging plan), or the date that you begin emissions averaging, whichever is earlier; or

(2) The control technology employed during the initial performance test must not be less than the design efficiency of the emissions control technology employed 180 days after April 16, 2015 or the date that you begin emissions averaging, whichever is earlier.

(e) The weighted-average emissions rate from the existing EGUs participating in the emissions averaging option must be in compliance with the limits in Table 2 to this subpart at all times following the compliance date specified 180 days after April 16, 2015, or the date on which you complete the emissions measurements used to support your emissions averaging plan (if the Administrator does not require submission and approval of your emissions averaging plan), or the date that you begin emissions averaging, whichever is earlier.

(f) Emissions averaging group eligibility demonstration. You must demonstrate the ability for the EGUs included in the emissions averaging group to demonstrate initial compliance according to paragraph (f)(1) or (2) of this section using the maximum normal operating load of each EGU and the results of the initial performance tests. For this demonstration and prior to submitting your emissions averaging plan, if requested, you must conduct required emissions monitoring for 30 days of boiler operation and any required manual performance testing to calculate an initial weighted average emissions rate in accordance with this section. Should the Administrator require approval, you must submit your proposed emissions averaging plan and supporting data at least 120 days before April 16, 2015. If the Administrator requires approval of your plan, you may not begin using emissions averaging until the Administrator approves your plan.

(1) You must use Equation 1a in paragraph (b) of this section to demonstrate that the maximum weighted average emissions rates of filterable PM, HF, SO₂, HCl, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging option do not exceed the emissions limits in Table 2 to this subpart.

(2) If you are not capable of monitoring heat input or gross electrical output, and the EGU generates steam for purposes other than generating electricity, you may use Equation 1b of this section as an alternative to using Equation 1a of this section to demonstrate that the maximum weighted average emissions rates of filterable PM, HF, SO₂, HCl, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging group do not exceed the emission limits in Table 2 to this subpart.

(g) You must determine the weighted average emissions rate in units of the applicable emissions limit on a 30 day rolling average (90 day rolling average for Hg) basis according to paragraphs (g)(1) through (2) of this section. The first averaging period begins on 30 (or 90 for Hg) days after February 16, 2015 or the date that you begin emissions averaging, whichever is earlier.

(1) You must use Equation 2a or 3a of paragraph (b) of this section to calculate the weighted average emissions rate using the actual heat input or gross electrical output for each existing unit participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input or gross electrical output, you may use Equation 2b or 3b of paragraph (b) of this section as an alternative to using Equation 2a of paragraph (b) of this section to calculate the average weighted emission rate using the actual steam generation from the units participating in the emissions averaging option.

(h) *CEMS (or sorbent trap monitoring) use.* If an EGU in your emissions averaging group uses CEMS (or a sorbent trap monitor for Hg emissions) to demonstrate compliance, you must use those data to determine the 30 (or 90) group boiler operating day rolling average emissions rate.

(i) *Emissions testing.* If you use manual emissions testing to demonstrate compliance for one or more EGUs in your emissions averaging group, you must use the results from the most recent performance test to determine the 30 (or 90) day rolling average. You may use CEMS or sorbent trap data in combination with data from the most recent manual performance test in calculating the 30 (or 90) group boiler operating day rolling average emissions rate.

(j) *Emissions averaging plan.* You must develop an implementation plan for emissions averaging according to the following procedures and requirements in paragraphs (j)(1) and (2) of this section.

(1) You must include the information contained in paragraphs (j)(1)(i) through (v) of this section in your implementation plan for all the emissions units included in an emissions averaging:

(i) The identification of all existing EGUs in the emissions averaging group, including for each either the applicable HAP emission level or the control technology installed as of 180 days after February 16, 2015, or the date on which you complete the emissions measurements used to support your emissions averaging plan (if the Administrator does not require submission and approval of your emissions averaging plan), or the date that you begin emissions averaging, whichever is earlier; and the date on which you are requesting emissions averaging to commence;

(ii) The process weighting parameter (heat input, gross electrical output, or steam generated) that will be monitored for each averaging group;

(iii) The specific control technology or pollution prevention measure to be used for each emission EGU in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple EGUs, you must identify each EGU;

(iv) The means of measurement (e.g., CEMS, sorbent trap monitoring, manual performance test) of filterable PM, SO₂, HF, HCl, individual or total non-Hg HAP metals, or Hg emissions in accordance with the requirements in §63.10007 and to be used in the emissions averaging calculations; and

(v) A demonstration that emissions averaging can produce compliance with each of the applicable emission limit(s) in accordance with paragraph (b)(1) of this section.

(2) If the Administrator requests you to submit the plan for review and approval, you must submit a complete implementation plan at least 120 days before April 16, 2015. If the Administrator requests you to submit the plan for review and approval, you must receive approval before initiating emissions averaging.

(i) The Administrator shall use following criteria in reviewing and approving or disapproving the plan:

(A) Whether the content of the plan includes all of the information specified in paragraph (j)(1) of this section; and

(B) Whether the plan presents information sufficient to determine that compliance will be achieved and maintained.

(ii) The Administrator shall not approve an emissions averaging implementation plan containing any of the following provisions:

(A) Any averaging between emissions of different pollutants or between units located at different facilities; or

(B) The inclusion of any emissions unit other than an existing unit in the same subcategory.

(k) *Common stack requirements.* For a group of two or more existing affected units, each of which vents through a single common stack, you may average emissions to demonstrate compliance with the limits in Table 2 to this subpart if you satisfy the requirements in paragraph (l) or (m) of this section.

(l) For a group of two or more existing units in the same subcategory and which vent through a common emissions control system to a common stack that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit.

(m) For all other groups of units subject to paragraph (k) of this section, you may elect to conduct manual performance tests according to procedures specified in §63.10007 in the common stack. If emissions from affected units included in the emissions averaging and from other units not included in the emissions averaging (e.g., in a different subcategory) or other nonaffected units all vent to the common stack, you must shut down the units not included in the emissions averaging and the nonaffected units or vent their emissions to a different stack during the performance test. Alternatively, you may conduct a performance test of the combined emissions in the common stack with all units operating and show that the combined emissions meet the most stringent emissions limit. You may also use a CEMS or sorbent trap monitoring to apply this latter alternative to demonstrate that the combined emissions comply with the most stringent emissions limit on a continuous basis.

(n) *Combination requirements.* The common stack of a group of two or more existing EGUs in the same subcategory subject to paragraph (k) of this section may be treated as a single stack for purposes of paragraph (c) of this section and included in an emissions averaging group subject to paragraph (c) of this section.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23403, Apr. 19, 2012; 78 FR 24085, Apr. 24, 2013]

§63.10010 What are my monitoring, installation, operation, and maintenance requirements?

(a) Flue gases from the affected units under this subpart exhaust to the atmosphere through a variety of different configurations, including but not limited to individual stacks, a common stack configuration or a main stack plus a bypass stack. For the CEMS, PM CPMS, and sorbent trap monitoring systems used to provide data under this subpart, the continuous monitoring system installation requirements for these exhaust configurations are as follows:

(1) *Single unit-single stack configurations.* For an affected unit that exhausts to the atmosphere through a single, dedicated stack, you shall either install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere.

(2) *Unit utilizing common stack with other affected unit(s).* When an affected unit utilizes a common stack with one or more other affected units, but no non-affected units, you shall either:

(i) Install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the duct leading to the common stack from each unit; or

(ii) Install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the common stack.

(3) *Unit(s) utilizing common stack with non-affected unit(s).*

(i) When one or more affected units shares a common stack with one or more non-affected units, you shall either:

(A) Install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the ducts leading to the common stack from each affected unit; or

(B) Install the required CEMS, PM CPMS, and sorbent trap monitoring systems described in this section in the common stack and attribute all of the emissions measured at the common stack to the affected unit(s).

(ii) If you choose the common stack monitoring option:

(A) For each hour in which valid data are obtained for all parameters, you must calculate the pollutant emission rate and

(B) You must assign the calculated pollutant emission rate to each unit that shares the common stack.

(4) *Unit with a main stack and a bypass stack.* If the exhaust configuration of an affected unit consists of a main stack and a bypass stack, you shall install CEMS on both the main stack and the bypass stack, or, if it is not feasible to certify and quality-assure the data from a monitoring system on the bypass stack, you shall install a CEMS only on the main stack and count bypass hours of deviation from the monitoring requirements.

(5) *Unit with a common control device with multiple stack or duct configuration.* If the flue gases from an affected unit, which is configured such that emissions are controlled with a common control device or series of control devices, are discharged to the atmosphere through more than one stack or are fed into a single stack through two or more ducts, you may:

(i) Install required CEMS, PM CPMS, and sorbent trap monitoring systems in each of the multiple stacks;

(ii) Install required CEMS, PM CPMS, and sorbent trap monitoring systems in each of the ducts that feed into the stack;

(iii) Install required CEMS, PM CPMS, and sorbent trap monitoring systems in one of the multiple stacks or ducts and monitor the flows and dilution rates in all multiple stacks or ducts in order to determine total exhaust gas flow rate and pollutant mass emissions rate in accordance with the applicable limit; or

(iv) In the case of multiple ducts feeding into a single stack, install CEMS, PM CPMS, and sorbent trap monitoring systems in the single stack as described in paragraph (a)(1) of this section.

(6) *Unit with multiple parallel control devices with multiple stacks.* If the flue gases from an affected unit, which is configured such that emissions are controlled with multiple parallel control devices or multiple series of control devices are discharged to the atmosphere through more than one stack, you shall install the required CEMS, PM CPMS, and sorbent trap monitoring systems described in each of the multiple stacks. You shall calculate hourly flow-weighted average pollutant emission rates for the unit as follows:

(i) Calculate the pollutant emission rate at each stack or duct for each hour in which valid data are obtained for all parameters;

(ii) Multiply each calculated hourly pollutant emission rate at each stack or duct by the corresponding hourly stack gas flow rate at that stack or duct;

(iii) Sum the products determined under paragraph (a)(6)(ii) of this section; and

(iv) Divide the result obtained in paragraph (a)(6)(iii) of this section by the total hourly stack gas flow rate for the unit, summed across all of the stacks or ducts.

(b) If you use an oxygen (O_2) or carbon dioxide (CO_2) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the O_2 or CO_2 concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.*, at the outlet of the EGU, downstream of all emission control devices. You must install, certify, maintain, and operate the CEMS according to part 75 of this chapter. Use only quality-assured O_2 or CO_2 data in the emissions calculations; do not use part 75 substitute data values.

(c) If you are required to use a stack gas flow rate monitor, either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 1 or 2 to this subpart, you must install, certify, operate, and maintain the monitoring system and conduct on-going quality-assurance testing of the system according to part 75 of this chapter. Use only unadjusted, quality-assured flow rate data in the emissions calculations. Do not apply bias adjustment factors to the flow rate data and do not use substitute flow rate data in the calculations.

(d) If you are required to make corrections for stack gas moisture content when converting pollutant concentrations to the units of an emission standard in Table 1 of 2 to this subpart, you must install, certify, operate, and maintain a moisture monitoring system in accordance with part 75 of this chapter. Alternatively, for coal-fired units, you may use appropriate fuel-specific default moisture values from §75.11(b) of this chapter to estimate the moisture content of the stack gas or you may petition the Administrator under §75.66 of this chapter for use of a default moisture value for non-coal-fired units. If you install and operate a moisture monitoring system, do not use substitute moisture data in the emissions calculations.

(e) If you use an HCl and/or HF CEMS, you must install, certify, operate, maintain, and quality-assure the data from the monitoring system in accordance with appendix B to this subpart. Calculate and record a 30-boiler operating day rolling average HCl or HF emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all the valid hourly HCl or HF emission rates in the preceding 30 boiler operating days (see section 9.4 of appendix B to this subpart).

(f)(1) If you use an SO_2 CEMS, you must install the monitor at the outlet of the EGU, downstream of all emission control devices, and you must certify, operate, and maintain the CEMS according to part 75 of this chapter.

(2) For on-going QA, the SO_2 CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO_2 CEMS has a span value of 30 ppm or less.

(3) Calculate and record a 30-boiler operating day rolling average SO_2 emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all of the valid SO_2 emission rates in the preceding 30 boiler operating days.

(4) Use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO_2 data and do not use part 75 substitute data values.

(g) If you use a Hg CEMS or a sorbent trap monitoring system, you must install, certify, operate, maintain and quality-assure the data from the monitoring system in accordance with appendix A to this subpart. You must calculate and record a 30- (or, if alternate emissions averaging is used, 90-) boiler operating day rolling average Hg emission rate, in units of the standard, updated after each new boiler operating day. Each 30- (or, if alternate emissions averaging is used, 90-) boiler operating day rolling average emission rate, calculated according to section 6.2 of appendix A to the subpart, is the average of all of the valid hourly Hg emission rates in the preceding 30- (or, if alternate emissions averaging is used, a 90-) boiler operating days. Section 7.1.4.3 of appendix A to this subpart explains how to reduce sorbent trap monitoring system data to an hourly basis.

(h) If you use a PM CPMS to demonstrate continuous compliance with an operating limit, you must install, calibrate, maintain, and operate the PM CPMS and record the output of the system as specified in paragraphs (h)(1) through (5) of this section.

(1) Install, calibrate, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with §63.10000(d), and meet the requirements in paragraphs (h)(1)(i) through (iii) of this section.

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of the exhaust gas or representative sample. The reportable measurement output from the PM CPMS may be expressed as milliamps, stack concentration, or other raw data signal.

(ii) The PM CPMS must have a cycle time (*i.e.*, period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS must be capable, at a minimum, of detecting and responding to particulate matter concentrations of 0.5 mg/acm.

(2) For a new unit, complete the initial PM CPMS performance evaluation no later than October 13, 2012 or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no later than October 13, 2015.

(3) Collect PM CPMS hourly average output data for all boiler operating hours except as indicated in paragraph (h)(5) of this section. Express the PM CPMS output as milliamps, PM concentration, or other raw data signal value.

(4) Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average PM CPMS output collected during all nonexempt boiler operating hours data (*e.g.*, milliamps, PM concentration, raw data signal).

(5) You must collect data using the PM CPMS at all times the process unit is operating and at the intervals specified in paragraph (h)(1)(ii) of this section, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), and any scheduled maintenance as defined in your site-specific monitoring plan.

(6) You must use all the data collected during all boiler operating hours in assessing the compliance with your operating limit except:

(i) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities conducted during monitoring system malfunctions are not used in calculations (report any such periods in your annual deviation report);

(ii) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods are not used in calculations (report emissions or operating levels and report any such periods in your annual deviation report);

(iii) Any data recorded during periods of startup or shutdown.

(7) You must record and make available upon request results of PM CPMS system performance audits, as well as the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with your site-specific monitoring plan.

(i) If you choose to comply with the PM filterable emissions limit in lieu of metal HAP limits, you may choose to install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (i)(1) through (5) of this section. The compliance limit will be expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable for your unit in tables 1 or 2 to this subpart.

(1) Install and certify your PM CEMS according to the procedures and requirements in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to part 60 of this chapter, using Method 5 at Appendix A-3 to part 60 of this chapter

and ensuring that the front half filter temperature shall be $160^{\circ} \pm 14^{\circ} \text{C}$ ($320^{\circ} \pm 25^{\circ} \text{F}$). The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).

(2) Operate and maintain your PM CEMS according to the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to part 60 of this chapter.

(i) You must conduct the relative response audit (RRA) for your PM CEMS at least once annually.

(ii) You must conduct the relative correlation audit (RCA) for your PM CEMS at least once every 3 years.

(3) Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in paragraph (i) of this section.

(4) Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler operating hours.

(5) You must collect data using the PM CEMS at all times the process unit is operating and at the intervals specified in paragraph (a) of this section, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

(i) You must use all the data collected during all boiler operating hours in assessing the compliance with your operating limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions in calculations and report any such periods in your annual deviation report;

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in your annual deviation report;

(C) Any data recorded during periods of startup or shutdown.

(ii) You must record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with your site-specific monitoring plan.

(j) You may choose to comply with the metal HAP emissions limits using CEMS approved in accordance with §63.7(f) as an alternative to the performance test method specified in this rule. If approved to use a HAP metals CEMS, the compliance limit will be expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable for your unit in tables 1 or 2. If approved, you may choose to install, certify, operate, and maintain a HAP metals CEMS and record the output of the HAP metals CEMS as specified in paragraphs (j)(1) through (5) of this section.

(1)(i) Install and certify your HAP metals CEMS according to the procedures and requirements in your approved site-specific test plan as required in §63.7(e). The reportable measurement output from the HAP metals CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh) and in the form of a 30-boiler operating day rolling average.

(ii) Operate and maintain your HAP metals CEMS according to the procedures and criteria in your site specific performance evaluation and quality control program plan required in §63.8(d).

(2) Collect HAP metals CEMS hourly average output data for all boiler operating hours except as indicated in section (j)(4) of this section.

(3) Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average HAP metals CEMS output data collected during all nonexempt boiler operating hours data.

(4) You must collect data using the HAP metals CEMS at all times the process unit is operating and at the intervals specified in paragraph (a) of this section, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

(i) You must use all the data collected during all boiler operating hours in assessing the compliance with your emission limit except:

(A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions in calculations and report any such periods in your annual deviation report;

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in your annual deviation report;

(C) Any data recorded during periods of startup or shutdown.

(ii) You must record and make available upon request results of HAP metals CEMS system performance audits, dates and duration of periods when the HAP metals CEMS is out of control to completion of the corrective actions necessary to return the HAP metals CEMS to operation consistent with your site-specific performance evaluation and quality control program plan.

(k) If you demonstrate compliance with the HCl and HF emission limits for a liquid oil-fired EGU by conducting quarterly testing, you must also develop a site-specific monitoring plan as provided for in §63.10000(c)(2)(iii) and Table 7 to this subpart.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23404, Apr. 19, 2012; 78 FR 24086, Apr. 24, 2013]

§63.10011 How do I demonstrate initial compliance with the emissions limits and work practice standards?

(a) You must demonstrate initial compliance with each emissions limit that applies to you by conducting performance testing.

(b) If you are subject to an operating limit in Table 4 to this subpart, you demonstrate initial compliance with HAP metals or filterable PM emission limit(s) through performance stack tests and you elect to use a PM CPMS to demonstrate continuous performance, or if, for a liquid oil-fired unit, and you use quarterly stack testing for HCl and HF plus site-specific parameter monitoring to demonstrate continuous performance, you must also establish a site-specific operating limit, in accordance with Table 4 to this subpart, §63.10007, and Table 6 to this subpart. You may use only the parametric data recorded during successful performance tests (*i.e.*, tests that demonstrate compliance with the applicable emissions limits) to establish an operating limit.

(c)(1) If you use CEMS or sorbent trap monitoring systems to measure a HAP (*e.g.*, Hg or HCl) directly, the first 30-boiler operating day (or, if alternate emissions averaging is used for Hg, the 90-boiler operating day) rolling average emission rate obtained with certified CEMS after the applicable date in §63.9984 (or, if applicable, prior to that date, as described in §63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable emission limit in Table 1 or 2 to this subpart.

(2) For a unit that uses a CEMS to measure SO₂ or PM emissions for initial compliance, the first 30 boiler operating day average emission rate obtained with certified CEMS after the applicable date in §63.9984 (or, if applicable, prior to that date, as described in §63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable SO₂ or filterable PM emission limit in Table 1 or 2 to this subpart.

(d) For candidate LEE units, use the results of the performance testing described in §63.10005(h) to determine initial compliance with the applicable emission limit(s) in Table 1 or 2 to this subpart and to determine whether the unit qualifies for LEE status.

(e) You must submit a Notification of Compliance Status containing the results of the initial compliance demonstration, according to §63.10030(e).

(f)(1) You must determine the fuel whose combustion produces the least uncontrolled emissions, *i.e.*, the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown.

(2) Your cleanest fuel, either natural gas or distillate oil, for use during periods of startup or shutdown determination may take safety considerations into account.

(g) You must follow the startup or shutdown requirements given in Table 3 for each coal-fired, liquid oil-fired, and solid oil-derived fuel-fired EGU.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23404, Apr. 19, 2012]

CONTINUOUS COMPLIANCE REQUIREMENTS

§63.10020 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.10000(d).

(b) You must operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see §63.8(c)(7) of this part), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. You are required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during EGU startup or shutdown or monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments), failure to collect required data is a deviation from the monitoring requirements.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23404, Apr. 19, 2012]

§63.10021 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you, according to the monitoring specified in Tables 6 and 7 to this subpart and paragraphs (b) through (g) of this section.

(b) Except as otherwise provided in §63.10020(c), if you use a CEMS to measure SO₂, PM, HCl, HF, or Hg emissions, or using a sorbent trap monitoring system to measure Hg emissions, you must demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO₂, O₂, or moisture systems) to calculate the arithmetic

average emissions rate in units of the standard on a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. Use Equation 8 to determine the 30- (or, if applicable, 90-) boiler operating day rolling average.

$$\text{Boiler operating day average} = \frac{\sum_{i=1}^n \text{Her}_i}{n} \text{ (Eq. 8)}$$

Where:

Her_i is the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30- (or, if applicable, 90-) boiler operating days.

(c) If you use a PM CPMS data to measure compliance with an operating limit in Table 4 to this subpart, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (e.g., milliamperes, PM concentration, raw data signal) on a 30 operating day rolling average basis, updated at the end of each new boiler operating day. Use Equation 9 to determine the 30 boiler operating day average.

$$\text{30 boiler operating day average} = \frac{\sum_{i=1}^n \text{Hpv}_i}{n} \text{ (Eq. 9)}$$

Where:

Hpv_i is the hourly parameter value for hour i and n is the number of valid hourly parameter values collected over 30 boiler operating days.

(1) For any exceedance of the 30-boiler operating day PM CPMS average value from the established operating parameter limit for an EGU subject to the emissions limits in Table 1 to this subpart, you must:

(i) Within 48 hours of the exceedance, visually inspect the air pollution control device (APCD);

(ii) If the inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible, and return the PM CPMS measurement to within the established value; and

(iii) Within 45 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the CPMS operating limit. You are not required to conduct any additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph.

(2) PM CPMS exceedances of the operating limit for an EGU subject to the emissions limits in Table 1 of this subpart leading to more than four required performance tests in a 12-month period (rolling monthly) constitute a separate violation of this subpart.

(d) If you use quarterly performance testing to demonstrate compliance with one or more applicable emissions limits in Table 1 or 2 to this subpart, you

(1) May skip performance testing in those quarters during which less than 168 boiler operating hours occur, except that a performance test must be conducted at least once every calendar year.

(2) Must conduct the performance test as defined in Table 5 to this subpart and calculate the results of the testing in units of the applicable emissions standard; and

(3) Must conduct site-specific monitoring for a liquid oil-fired unit to ensure compliance with the HCl and HF emission limits in Tables 1 and 2 to this subpart, in accordance with the requirements of §63.10000(c)(2)(iii). The monitoring must meet the general operating requirements provided in §63.10020(a).

(e) If you must conduct periodic performance tune-ups of your EGU(s), as specified in paragraphs (e)(1) through (9) of this section, perform the first tune-up as part of your initial compliance demonstration. Notwithstanding this requirement, you may delay the first burner inspection until the next scheduled unit outage provided you meet the requirements of §63.10005. Subsequently, you must perform an inspection of the burner at least once every 36 calendar months unless your EGU employs neural network combustion optimization during normal operations in which case you must perform an inspection of the burner and combustion controls at least once every 48 calendar months.

(1) As applicable, inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:

(i) Burner or combustion control component parts needing replacement that affect the ability to optimize NO_x and CO must be installed within 3 calendar months after the burner inspection,

(ii) Burner or combustion control component parts that do not affect the ability to optimize NO_x and CO may be installed on a schedule determined by the operator;

(2) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type;

(3) As applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors;

(4) As applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors;

(5) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O₂ probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary;

(6) Optimize combustion to minimize generation of CO and NO_x. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO_x optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles;

(7) While operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NO_x in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). You may use portable CO, NO_x and O₂ monitors for this measurement. EGU's employing neural network optimization systems need only provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system;

(8) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (e)(1) through (e)(9) of this section including:

(i) The concentrations of CO and NO_x in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems;

(ii) A description of any corrective actions taken as a part of the combustion adjustment; and

(iii) The type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period; and

(9) Report the dates of the initial and subsequent tune-ups as follows:

(i) If the first required tune-up is performed as part of the initial compliance demonstration, report the date of the tune-up in hard copy (as specified in §63.10030) and electronically (as specified in §63.10031). Report the date of each subsequent tune-up electronically (as specified in §63.10031).

(ii) If the first tune-up is not conducted as part of the initial compliance demonstration, but is postponed until the next unit outage, report the date of that tune-up and all subsequent tune-ups electronically, in accordance with §63.10031.

(f) You must submit the reports required under §63.10031 and, if applicable, the reports required under appendices A and B to this subpart. The electronic reports required by appendices A and B to this subpart must be sent to the Administrator electronically in a format prescribed by the Administrator, as provided in §63.10031. CEMS data (except for PM CEMS and any approved alternative monitoring using a HAP metals CEMS) shall be submitted using EPA's Emissions Collection and Monitoring Plan System (ECMPS) Client Tool. Other data, including PM CEMS data, HAP metals CEMS data, and CEMS performance test detail reports, shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool, the Compliance and Emissions Data Reporting Interface, or alternate electronic file format, all as provided for under §63.10031.

(g) You must report each instance in which you did not meet an applicable emissions limit or operating limit in Tables 1 through 4 to this subpart or failed to conduct a required tune-up. These instances are deviations from the requirements of this subpart. These deviations must be reported according to §63.10031.

(h) You must keep records as specified in §63.10032 during periods of startup and shutdown.

(i) You must provide reports as specified in §63.10031 concerning activities and periods of startup and shutdown.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23404, Apr. 19, 2012; 78 FR 24086, Apr. 24, 2013]

§63.10022 How do I demonstrate continuous compliance under the emissions averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (3) of this section.

(1) For each 30- (or 90-) day rolling average period, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in §63.10009(f) and (g);

(2) For each existing unit participating in the emissions averaging option that is equipped with PM CPMS, maintain the average parameter value at or below the operating limit established during the most recent performance test;

(3) For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (3) of this section is a deviation.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23404, Apr. 19, 2012]

§63.10023 How do I establish my PM CPMS operating limit and determine compliance with it?

(a) During the initial performance test or any such subsequent performance test that demonstrates compliance with the filterable PM, individual non-mercury HAP metals, or total non-mercury HAP metals limit (or for liquid oil-fired units, individual HAP metals or total HAP metals limit, including Hg) in Table 1 or 2, record all hourly average output

values (e.g., milliamps, stack concentration, or other raw data signal) from the PM CPMS for the periods corresponding to the test runs (e.g., nine 1-hour average PM CPMS output values for three 3-hour test runs).

(b) Determine your operating limit as provided in paragraph (b)(1) or (b)(2) of this section. You must verify an existing or establish a new operating limit after each repeated performance test.

(1) For an existing EGU, determine your operating limit based on the highest 1-hour average PM CPMS output value recorded during the performance test.

(2) For a new EGU, determine your operating limit as follows.

(i) If your PM performance test demonstrates your PM emissions do not exceed 75 percent of your emissions limit, you will use the average PM CPMS value recorded during the PM compliance test, the milliamp equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit. Calculate the operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 compliance test with the procedures in (b)(2)(i)(A) through (D) of this section.

(A) Determine your PM CPMS instrument zero output with one of the following procedures.

(1) Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.

(2) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.

(3) The zero point can also be obtained by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.

(4) If none of the steps in paragraphs (A)(1) through (3) of this section are possible, you must use a zero output value provided by the manufacturer.

(B) Determine your PM CPMS instrument average (\bar{x}) in milliamps, and the average of your corresponding three PM compliance test runs (\bar{y}), using equation 10.

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n X_i, \bar{y} = \frac{1}{n} \sum_{i=1}^n Y_i \quad (\text{Eq. 10})$$

Where:

X_i = the PM CPMS data points for run i of the performance test,

Y_i = the PM emissions value (in lb/MWh) for run i of the performance test, and

n = the number of data points.

(C) With your PM CPMS instrument zero expressed in milliamps, your three run average PM CPMS milliamp value, and your three run average PM emissions value (in lb/MWh) from your compliance runs, determine a relationship of PM lb/MWh per milliamp with equation 11.

$$R = \frac{y}{(x - z)} \quad (\text{Eq. 11})$$

Where:

R = the relative PM lb/MWh per milliamp for your PM CPMS,

y = the three run average PM lb/MWh,

x = the three run average milliamp output from your PM CPMS, and

z = the milliamp equivalent of your instrument zero determined from (b)(2)(i)(A) of this section.

(D) Determine your source specific 30-day rolling average operating limit using the PM lb/MWh per milliamp value from equation 11 in equation 12, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$O_L = z + \frac{(0.75 \times L)}{R} \quad (\text{Eq. 12})$$

Where:

O_L = the operating limit for your PM CPMS on a 30-day rolling average, in milliamps,

L = your source PM emissions limit in lb/MWh,

z = your instrument zero in milliamps, determined from (b)(2)(i)(A) of this section, and

R = the relative PM lb/MWh per milliamp for your PM CPMS, from equation 11.

(ii) If your PM compliance test demonstrates your PM emissions exceed 75 percent of your emissions limit, you will use the average PM CPMS value recorded during the PM compliance test demonstrating compliance with the PM limit to establish your operating limit.

(A) Determine your operating limit by averaging the PM CPMS milliamp output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using equation 13.

$$O_h = \frac{1}{n} \sum_{i=1}^n X_i \quad (\text{Eq. 13})$$

Where:

X_i = the PM CPMS data points for all runs i,

n = the number of data points, and

O_h = your site specific operating limit, in milliamps.

(iii) Your PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.

(iv) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to two times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to two times your allowable emission limit.

(v) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs.

(vi) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signal corresponding to each PM compliance test run.

(c) You must operate and maintain your process and control equipment such that the 30 operating day average PM CPMS output does not exceed the operating limit determined in paragraphs (a) and (b) of this section.

[77 FR 9464, Feb. 16, 2012, as amended at 78 FR 24086, Apr. 24, 2013]

NOTIFICATION, REPORTS, AND RECORDS

§63.10030 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(b) As specified in §63.9(b)(2), if you startup your EGU that is an affected source before April 16, 2012, you must submit an Initial Notification not later than 120 days after April 16, 2012.

(c) As specified in §63.9(b)(4) and (b)(5), if you startup your new or reconstructed EGU that is an affected source on or after April 16, 2012, you must submit an Initial Notification not later than 15 days after the actual date of startup of the EGU that is an affected source.

(d) When you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) When you are required to conduct an initial compliance demonstration as specified in §63.10011(a), you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (7), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the design capacity of the source, a description of the add-on controls used on the source, description of the fuel(s) burned, including whether the fuel(s) were determined by you or EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests and fuel analyses and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing; fuel moisture analyses; performance testing with operating limits (e.g., use of PM CPMS); CEMS; or a sorbent trap monitoring system.

(4) Identification of whether you plan to demonstrate compliance by emissions averaging.

(5) A signed certification that you have met all applicable emission limits and work practice standards.

(6) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation in the Notification of Compliance Status report.

(7) In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following:

(i) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable. If you are conducting stack tests once every 3 years consistent with §63.10006(b), the date of the last three stack tests, a comparison of the emission level you achieved in the last three stack tests to the 50 percent emission limit threshold required in §63.10006(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions.

(ii) Certifications of compliance, as applicable, and must be signed by a responsible official stating:

(A) "This EGU complies with the requirements in §63.10021(a) to demonstrate continuous compliance." and

(B) "No secondary materials that are solid waste were combusted in any affected unit."

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23404, Apr. 19, 2012; 78 FR 24087, Apr. 24, 2013]

§63.10031 What reports must I submit and when?

(a) You must submit each report in Table 8 to this subpart that applies to you. If you are required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, you must also submit the electronic reports required under appendix A and/or appendix B to the subpart, at the specified frequency.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 8 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.9984 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.9984.

(2) The first compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.9984.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (4) of this section.

(1) The information required by the summary report located in 63.10(e)(3)(vi).

(2) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(3) Indicate whether you burned new types of fuel during the reporting period. If you did burn new types of fuel you must include the date of the performance test where that fuel was in use.

(4) Include the date of the most recent tune-up for each unit subject to the requirement to conduct a performance tune-up according to §63.10021(e). Include the date of the most recent burner inspection if it was not done every 36 (or 48) months and was delayed until the next scheduled unit shutdown.

(d) For each excess emissions occurring at an affected source where you are using a CMS to comply with that emission limit or operating limit, you must include the information required in §63.10(e)(3)(v) in the compliance report specified in section (c).

(e) Each affected source that has obtained a Title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(f) As of January 1, 2012, and within 60 days after the date of completing each performance test, you must submit the results of the performance tests required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.

(1) Within 60 days after the date of completing each CEMS (SO₂, PM, HCl, HF, and Hg) performance evaluation test, as defined in §63.2 and required by this subpart, you must submit the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (<http://www.epa.gov/ttn/chief/ert/index.html>). Only RATA data compounds listed on the ERT Web site are subject to this requirement. Owners or operators who claim that some of the information being submitted for RATAs is confidential business information (CBI) shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to EPA and the same ERT file with the CBI omitted to EPA via CDX as described earlier in this paragraph. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. At the discretion of the delegated authority, owners or operators shall also submit these RATAs to the delegated authority in the format specified by the delegated authority. Owners or operators shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in §63.2 and as required in this chapter.

(2) For a PM CEMS, PM CPMS, or approved alternative monitoring using a HAP metals CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st, you must submit quarterly reports to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). You must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. For each reporting period, the quarterly reports must include all of the calculated 30-boiler operating day rolling average values derived from the CEMS and PM CPMS.

(3) Reports for an SO₂ CEMS, a Hg CEMS or sorbent trap monitoring system, an HCl or HF CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to this subpart and §63.10021(f).

(4) Submit the compliance reports required under paragraphs (c) and (d) of this section and the notification of compliance status required under §63.10030(e) to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). You must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format.

(5) All reports required by this subpart not subject to the requirements in paragraphs (f)(1) through (4) of this section must be sent to the Administrator at the appropriate address listed in §63.13. If acceptable to both the Administrator and the owner or operator of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraphs (f)(1), (2), and (3) of this section in paper format.

(g) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23404, Apr. 19, 2012]

§63.10032 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) and (2) of this section. If you are required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, you must also keep the records required under appendix A and/or appendix B to this subpart.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in §63.10(b)(2)(viii).

(b) For each CEMS and CPMS, you must keep records according to paragraphs (b)(1) through (4) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Table 7 to this subpart including records of all monitoring data and calculated averages for applicable PM CPMS operating limits to show continuous compliance with each emission limit and operating limit that applies to you.

(d) For each EGU subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (3) of this section.

(1) You must keep records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used.

(2) If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), you must keep a record which documents how the secondary material meets each of the

legitimacy criteria. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(2), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), you must keep a record which documents how the fuel satisfies the requirements of the petition process.

(3) For an EGU that qualifies as an LEE under §63.10005(h), you must keep annual records that document that your emissions in the previous stack test(s) continue to qualify the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the pollutant to increase within the past year.

(e) If you elect to average emissions consistent with §63.10009, you must additionally keep a copy of the emissions averaging implementation plan required in §63.10009(g), all calculations required under §63.10009, including daily records of heat input or steam generation, as applicable, and monitoring records consistent with §63.10022.

(f) You must keep records of the occurrence and duration of each startup and/or shutdown.

(g) You must keep records of the occurrence and duration of each malfunction of an operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(h) You must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(i) You must keep records of the type(s) and amount(s) of fuel used during each startup or shutdown.

(j) If you elect to establish that an EGU qualifies as a limited-use liquid oil-fired EGU, you must keep records of the type(s) and amount(s) of fuel use in each calendar quarter to document that the capacity factor limitation for that subcategory is met.

§63.10033 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

OTHER REQUIREMENTS AND INFORMATION

§63.10040 What parts of the General Provisions apply to me?

Table 9 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§63.10041 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (4) of this section are retained by the EPA

Administrator and are not transferred to the state, local, or tribal agency; moreover, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate, with respect to any failure by any person to comply with any provision of this subpart.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in §63.9991(a) and (b) under §63.6(g).

(2) Approval of major change to test methods in Table 5 to this subpart under §63.7(e)(2)(ii) and (f) and as defined in §63.90, approval of minor and intermediate changes to monitoring performance specifications/procedures in Table 5 where the monitoring serves as the performance test method (see definition of “test method” in §63.2).

(3) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major change to recordkeeping and reporting under §63.10(e) and as defined in §63.90.

§63.10042 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA), in §63.2 (the General Provisions), and in this section as follows:

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Anthracite coal means solid fossil fuel classified as anthracite coal by American Society of Testing and Materials (ASTM) Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see §63.14).

Bituminous coal means coal that is classified as bituminous according to ASTM Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see §63.14).

Boiler operating day means a 24-hour period between midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for the fuel to be combusted the entire 24-hour period.

Capacity factor for a liquid oil-fired EGU means the total annual heat input from oil divided by the product of maximum hourly heat input for the EGU, regardless of fuel, multiplied by 8,760 hours.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see §63.14), and coal refuse. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, coal derived gases (not meeting the definition of natural gas), solvent-refined coal, coal-oil mixtures, and coal-water mixtures, are considered “coal” for the purposes of this subpart.

Coal-fired electric utility steam generating unit means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that burns coal for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

Coal refuse means any by-product of coal mining, physical coal cleaning, and coal preparation operations (e.g., culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Cogeneration means a steam-generating unit that simultaneously produces both electrical and useful thermal (or mechanical) energy from the same primary energy source.

Cogeneration unit means a stationary, fossil fuel-fired EGU meeting the definition of “fossil fuel-fired” or stationary, integrated gasification combined cycle:

(1) Having equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy; and

(2) Producing during the 12-month period starting on the date the unit first produces electricity and during any calendar year after which the unit first produces electricity:

(i) For a topping-cycle cogeneration unit,

(A) Useful thermal energy not less than 5 percent of total energy output; and

(B) Useful power that, when added to one-half of useful thermal energy produced, is not less than 42.5 percent of total energy input, if useful thermal energy produced is 15 percent or more of total energy output, or not less than 45 percent of total energy input, if useful thermal energy produced is less than 15 percent of total energy output.

(ii) For a bottoming-cycle cogeneration unit, useful power not less than 45 percent of total energy input.

(3) Provided that the total energy input under paragraphs (2)(i)(B) and (2)(ii) of this definition shall equal the unit's total energy input from all fuel except biomass if the unit is a boiler.

Combined-cycle gas stationary combustion turbine means a stationary combustion turbine system where heat from the turbine exhaust gases is recovered by a waste heat boiler.

Common stack means the exhaust of emissions from two or more affected units through a single flue.

Continental liquid oil-fired subcategory means any oil-fired electric utility steam generating unit that burns liquid oil and is located in the continental United States.

Deviation. (1) *Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, work practice standard, or monitoring requirement; or

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

Distillate oil means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by ASTM Method D396-10, “Standard Specification for Fuel Oils” (incorporated by reference, see §63.14).

Dry flue gas desulfurization technology, or dry FGD, or spray dryer absorber (SDA), or spray dryer, or dry scrubber means an add-on air pollution control system located downstream of the steam generating unit that injects a dry alkaline sorbent (dry sorbent injection) or sprays an alkaline sorbent slurry (spray dryer) to react with and neutralize acid gases such as SO₂ and HCl in the exhaust stream forming a dry powder material. Alkaline sorbent injection systems in fluidized bed combustors (FBC) or circulating fluidized bed (CFB) boilers are included in this definition.

Dry sorbent injection (DSI) means an add-on air pollution control system in which sorbent (e.g., conventional activated carbon, brominated activated carbon, Trona, hydrated lime, sodium carbonate, etc.) is injected into the flue gas stream upstream of a PM control device to react with and neutralize acid gases (such as SO₂ and HCl) or Hg in the exhaust stream forming a dry powder material that may be removed in a primary or secondary PM control device.

Electric Steam generating unit means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with integrated gasification combined cycle gas turbines; nuclear steam generators are not included) for the purpose of powering a generator to produce electricity or electricity and other thermal energy.

Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit.

Emission limitation means any emissions limit, work practice standard, or operating limit.

Excess emissions means, with respect to this subpart, results of any required measurements outside the applicable range (e.g., emissions limitations, parametric operating limits) that is permitted by this subpart. The values of measurements will be in the same units and averaging time as the values specified in this subpart for the limitations.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60, 61, and 63; requirements within any applicable state implementation plan; and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Flue gas desulfurization system means any add-on air pollution control system located downstream of the steam generating unit whose purpose or effect is to remove at least 50 percent of the SO₂ in the exhaust gas stream.

Fossil fuel means natural gas, oil, coal, and any form of solid, liquid, or gaseous fuel derived from such material.

Fossil fuel-fired means an electric utility steam generating unit (EGU) that is capable of combusting more than 25 MW of fossil fuels. To be "capable of combusting" fossil fuels, an EGU would need to have these fuels allowed in its operating permit and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired means any EGU that fired fossil fuels for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after the applicable compliance date.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, and residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

Fluidized bed boiler, or fluidized bed combustor, or circulating fluidized boiler, or CFB means a boiler utilizing a fluidized bed combustion process.

Fluidized bed combustion means a process where a fuel is burned in a bed of granulated particles which are maintained in a mobile suspension by the upward flow of air and combustion products.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, solid oil-derived gas, refinery gas, and biogas.

Generator means a device that produces electricity.

Gross output means the gross useful work performed by the steam generated and, for an IGCC electric utility steam generating unit, the work performed by the stationary combustion turbines. For a unit generating only electricity, the gross useful work performed is the gross electrical output from the unit's turbine/generator sets. For a cogeneration unit, the gross useful work performed is the gross electrical output, including any such electricity used in the power production process (which process includes, but is not limited to, any on-site processing or treatment of fuel combusted at the unit and any on-site emission controls), or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (*i.e.*, steam delivered to an industrial process).

Heat input means heat derived from combustion of fuel in an EGU (synthetic gas for an IGCC) and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, etc.

Integrated gasification combined cycle electric utility steam generating unit or IGCC means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that burns a synthetic gas derived from coal and/or solid oil-derived fuel for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year in a combined-cycle gas turbine. No solid coal or solid oil-derived fuel is directly burned in the unit during operation.

ISO conditions means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

Lignite coal means coal that is classified as lignite A or B according to ASTM Method D388-05, “Standard Classification of Coals by Rank” (incorporated by reference, see §63.14).

Limited-use liquid oil-fired subcategory means an oil-fired electric utility steam generating unit with an annual capacity factor of less than 8 percent of its maximum or nameplate heat input, whichever is greater, averaged over a 24-month block contiguous period commencing April 16, 2015.

Liquid fuel includes, but is not limited to, distillate oil and residual oil.

Monitoring system malfunction or out of control period means any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. Natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 Btu per standard cubic foot. Natural gas does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

Natural gas-fired electric utility steam generating unit means an electric utility steam generating unit meeting the definition of “fossil fuel-fired” that is not a coal-fired, oil-fired, or IGCC electric utility steam generating unit and that burns natural gas for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

Net-electric output means the gross electric sales to the utility power distribution system minus purchased power on a calendar year basis.

Non-continental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Non-continental liquid oil-fired subcategory means any oil-fired electric utility steam generating unit that burns liquid oil and is located outside the continental United States.

Non-mercury (Hg) HAP metals means Antimony (Sb), Arsenic (As), Beryllium (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Pb), Manganese (Mn), Nickel (Ni), and Selenium (Se).

Oil means crude oil or petroleum or a fuel derived from crude oil or petroleum, including distillate and residual oil, solid oil-derived fuel (e.g., petroleum coke) and gases derived from solid oil-derived fuels (not meeting the definition of natural gas).

Oil-fired electric utility steam generating unit means an electric utility steam generating unit meeting the definition of "fossil fuel-fired" that is not a coal-fired electric utility steam generating unit and that burns oil for more than 10.0 percent of the average annual heat input during any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year.

Particulate matter or *PM* means any finely divided solid material as measured by the test methods specified under this subpart, or an alternative method.

Pulverized coal (PC) boiler means an EGU in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the EGU where it is fired in suspension.

Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by ASTM Method D396-10, "Standard Specification for Fuel Oils" (incorporated by reference, see §63.14).

Responsible official means responsible official as defined in 40 CFR 70.2.

Shutdown means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use), or at the point of no fuel being fired in the boiler, whichever is earlier. Shutdown ends when there is both no electricity being generated and no fuel being fired in the boiler.

Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use).

Stationary combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, the combustion turbine portion of any stationary cogeneration cycle combustion system, or the combustion turbine portion of any stationary combined cycle steam/electric generating system. Stationary means that the combustion turbine is not self propelled or intended to be propelled while performing its function. Stationary combustion turbines do not include turbines located at a research or laboratory facility, if research is conducted on the turbine itself and the turbine is not being used to power other applications at the research or laboratory facility.

Steam generating unit means any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam (including fossil-fuel-fired steam generators associated with integrated gasification combined cycle gas turbines; nuclear steam generators are not included).

Stoker means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit undergrate air to the fuel, an overfire air system to complete combustion, and an ash discharge system. There are two general types of stokers: underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers.

Subbituminous coal means coal that is classified as subbituminous A, B, or C according to ASTM Method D388-05, "Standard Classification of Coals by Rank" (incorporated by reference, see §63.14).

Unit designed for coal $\geq 8,300$ Btu/lb subcategory means any coal-fired EGU that is not a coal-fired EGU in the "unit designed for low rank virgin coal" subcategory.

Unit designed for low rank virgin coal subcategory means any coal-fired EGU that is designed to burn and that is burning nonagglomerating virgin coal having a calorific value (moist, mineral matter-free basis) of less than 19,305 kJ/kg (8,300 Btu/lb) that is constructed and operates at or near the mine that produces such coal.

Unit designed to burn solid oil-derived fuel subcategory means any oil-fired EGU that burns solid oil-derived fuel.

Voluntary consensus standards or VCS mean technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The EPA/OAQPS has by precedent only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), International Standards Organization (ISO), Standards Australia (AS), British Standards (BS), Canadian Standards (CSA), European Standard (EN or CEN) and German Engineering Standards (VDI). The types of standards that are not considered VCS are standards developed by: the U.S. states, e.g., California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, e.g., Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within an EPA rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-VCS methods.

Wet flue gas desulfurization technology, or wet FGD, or wet scrubber means any add-on air pollution control device that is located downstream of the steam generating unit that mixes an aqueous stream or slurry with the exhaust gases from an EGU to control emissions of PM and/or to absorb and neutralize acid gases, such as SO₂ and HCl.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, which is promulgated pursuant to CAA section 112(h).

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23405, Apr. 19, 2012; 78 FR 24087, Apr. 24, 2013]

TABLES TO SUBPART UUUUU OF PART 63

Table 1 to Subpart UUUUU of Part 63—Emission Limits for New or Reconstructed EGUs

As stated in §63.9991, you must comply with the following applicable emission limits:

If your EGU is in this subcategory	For the following pollutants	You must meet the following emission limits and work practice standards	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5
1. Coal-fired unit not low rank virgin coal	a. Filterable particulate matter (PM)	9.0E-2 lb/MWh ¹	Collect a minimum of 4 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	6.0E-2 lb/GWh	Collect a minimum of 4 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	8.0E-3 lb/GWh	
	Arsenic (As)	3.0E-3 lb/GWh	
	Beryllium (Be)	6.0E-4 lb/GWh	
	Cadmium (Cd)	4.0E-4 lb/GWh	
	Chromium (Cr)	7.0E-3 lb/GWh	
	Cobalt (Co)	2.0E-3 lb/GWh	
	Lead (Pb)	2.0E-2 lb/GWh	

	Manganese (Mn)	4.0E-3 lb/GWh	
	Nickel (Ni)	4.0E-2 lb/GWh	
	Selenium (Se)	5.0E-2 lb/GWh	
	b. Hydrogen chloride (HCl)	1.0E-2 lb/MWh	For Method 26A, collect a minimum of 3 dscm per run.
			For ASTM D6348-03 ² or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO ₂) ³	1.0 lb/MWh	SO ₂ CEMS.
	c. Mercury (Hg)	3.0E-3 lb/GWh	Hg CEMS or sorbent trap monitoring system only.
2. Coal-fired units low rank virgin coal	a. Filterable particulate matter (PM)	9.0E-2 lb/MWh ¹	Collect a minimum of 4 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	6.0E-2 lb/GWh	Collect a minimum of 4 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	8.0E-3 lb/GWh	
	Arsenic (As)	3.0E-3 lb/GWh	
	Beryllium (Be)	6.0E-4 lb/GWh	
	Cadmium (Cd)	4.0E-4 lb/GWh	
	Chromium (Cr)	7.0E-3 lb/GWh	
	Cobalt (Co)	2.0E-3 lb/GWh	
	Lead (Pb)	2.0E-2 lb/GWh	
	Manganese (Mn)	4.0E-3 lb/GWh	
	Nickel (Ni)	4.0E-2 lb/GWh	
	Selenium (Se)	5.0E-2 lb/GWh	
	b. Hydrogen chloride (HCl)	1.0E-2 lb/MWh	For Method 26A, collect a minimum of 3 dscm per run.
			For ASTM D6348-03 ² or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO ₂) ³	1.0 lb/MWh	SO ₂ CEMS.
	c. Mercury (Hg)	4.0E-2 lb/GWh	Hg CEMS or sorbent trap monitoring system only.

3. IGCC unit	a. Filterable particulate matter (PM)	7.0E-2 lb/MWh ⁴ 9.0E-2 lb/MWh ⁵	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	4.0E-1 lb/GWh	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 2 dscm per run.
	Antimony (Sb)	2.0E-2 lb/GWh	
	Arsenic (As)	2.0E-2 lb/GWh	
	Beryllium (Be)	1.0E-3 lb/GWh	
	Cadmium (Cd)	2.0E-3 lb/GWh	
	Chromium (Cr)	4.0E-2 lb/GWh	
	Cobalt (Co)	4.0E-3 lb/GWh	
	Lead (Pb)	9.0E-3 lb/GWh	
	Manganese (Mn)	2.0E-2 lb/GWh	
	Nickel (Ni)	7.0E-2 lb/GWh	
	Selenium (Se)	3.0E-1 lb/GWh	
	b. Hydrogen chloride (HCl)	2.0E-3 lb/MWh	For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run.
			For ASTM D6348-03 ² or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO ₂) ³	4.0E-1 lb/MWh	SO ₂ CEMS.
	c. Mercury (Hg)	3.0E-3 lb/GWh	Hg CEMS or sorbent trap monitoring system only.
4. Liquid oil-fired unit—continental (excluding limited-use liquid oil-fired subcategory units)	a. Filterable particulate matter (PM)	3.0E-1 lb/MWh ¹	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total HAP metals	2.0E-4 lb/MWh	Collect a minimum of 2 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 2 dscm per run.
	Antimony (Sb)	1.0E-2 lb/GWh	
	Arsenic (As)	3.0E-3 lb/GWh	

	Beryllium (Be)	5.0E-4 lb/GWh	
	Cadmium (Cd)	2.0E-4 lb/GWh	
	Chromium (Cr)	2.0E-2 lb/GWh	
	Cobalt (Co)	3.0E-2 lb/GWh	
	Lead (Pb)	8.0E-3 lb/GWh	
	Manganese (Mn)	2.0E-2 lb/GWh	
	Nickel (Ni)	9.0E-2 lb/GWh	
	Selenium (Se)	2.0E-2 lb/GWh	
	Mercury (Hg)	1.0E-4 lb/GWh	For Method 30B sample volume determination (Section 8.2.4), the estimated Hg concentration should nominally be $<^{1/2}$ the standard.
	b. Hydrogen chloride (HCl)	4.0E-4 lb/MWh	For Method 26A, collect a minimum of 3 dscm per run.
			For ASTM D6348-03 ² or Method 320, sample for a minimum of 1 hour.
	c. Hydrogen fluoride (HF)	4.0E-4 lb/MWh	For Method 26A, collect a minimum of 3 dscm per run.
			For ASTM D6348-03 ² or Method 320, sample for a minimum of 1 hour.
5. Liquid oil-fired unit—non-continental (excluding limited-use liquid oil-fired subcategory units)	a. Filterable particulate matter (PM)	2.0E-1 lb/MWh ¹	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total HAP metals	7.0E-3 lb/MWh	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	8.0E-3 lb/GWh	
	Arsenic (As)	6.0E-2 lb/GWh	
	Beryllium (Be)	2.0E-3 lb/GWh	
	Cadmium (Cd)	2.0E-3 lb/GWh	
	Chromium (Cr)	2.0E-2 lb/GWh	
	Cobalt (Co)	3.0E-1 lb/GWh	
	Lead (Pb)	3.0E-2 lb/GWh	
	Manganese (Mn)	1.0E-1 lb/GWh	
	Nickel (Ni)	4.1E0 lb/GWh	
	Selenium (Se)	2.0E-2 lb/GWh	

	Mercury (Hg)	4.0E-4 lb/GWh	For Method 30B sample volume determination (Section 8.2.4), the estimated Hg concentration should nominally be $<^{1/2}$ the standard.
	b. Hydrogen chloride (HCl)	2.0E-3 lb/MWh	For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run.
			For ASTM D6348-03 ² or Method 320, sample for a minimum of 1 hour.
	c. Hydrogen fluoride (HF)	5.0E-4 lb/MWh	For Method 26A, collect a minimum of 3 dscm per run.
			For ASTM D6348-03 ² or Method 320, sample for a minimum of 1 hour.
6. Solid oil-derived fuel-fired unit	a. Filterable particulate matter (PM)	3.0E-2 lb/MWh ¹	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	6.0E-1 lb/GWh	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	8.0E-3 lb/GWh	
	Arsenic (As)	3.0E-3 lb/GWh	
	Beryllium (Be)	6.0E-4 lb/GWh	
	Cadmium (Cd)	7.0E-4 lb/GWh	
	Chromium (Cr)	6.0E-3 lb/GWh	
	Cobalt (Co)	2.0E-3 lb/GWh	
	Lead (Pb)	2.0E-2 lb/GWh	
	Manganese (Mn)	7.0E-3 lb/GWh	
	Nickel (Ni)	4.0E-2 lb/GWh	
	Selenium (Se)	6.0E-3 lb/GWh	
	b. Hydrogen chloride (HCl)	4.0E-4 lb/MWh	For Method 26A, collect a minimum of 3 dscm per run.
			For ASTM D6348-03 ² or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO ₂) ³	1.0 lb/MWh	SO ₂ CEMS.
	c. Mercury (Hg)	2.0E-3 lb/GWh	Hg CEMS or Sorbent trap monitoring system only.

¹Gross electric output.

²Incorporated by reference, see §63.14.

³You may not use the alternate SO₂ limit if your EGU does not have some form of FGD system (or, in the case of IGCC EGUs, some other acid gas removal system either upstream or downstream of the combined cycle block) and SO₂ CEMS installed.

⁴Duct burners on syngas; gross electric output.

⁵Duct burners on natural gas; gross electric output.

[78 FR 24087, Apr. 24, 2013]

Table 2 to Subpart UUUUU of Part 63—Emission Limits for Existing EGUs

As stated in §63.9991, you must comply with the following applicable emission limits:¹

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 . . .
1. Coal-fired unit not low rank virgin coal	a. Filterable particulate matter (PM)	3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh. ²	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	5.0E-5 lb/MMBtu or 5.0E-1 lb/GWh.	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh.	
	Arsenic (As)	1.1E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Beryllium (Be)	2.0E-1 lb/TBtu or 2.0E-3 lb/GWh.	
	Cadmium (Cd)	3.0E-1 lb/TBtu or 3.0E-3 lb/GWh.	
	Chromium (Cr)	2.8E0 lb/TBtu or 3.0E-2 lb/GWh.	
	Cobalt (Co)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh.	
	Lead (Pb)	1.2E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Manganese (Mn)	4.0E0 lb/TBtu or 5.0E-2 lb/GWh.	
	Nickel (Ni)	3.5E0 lb/TBtu or 4.0E-2 lb/GWh.	

	Selenium (Se)	5.0E0 lb/TBtu or 6.0E-2 lb/GWh.	
	b. Hydrogen chloride (HCl)	2.0E-3 lb/MMBtu or 2.0E-2 lb/MWh.	For Method 26A, collect a minimum of 0.75 dscm per run; for Method 26, collect a minimum of 120 liters per run.
			For ASTM D6348-03 ³ or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO ₂) ⁴	2.0E-1 lb/MMBtu or 1.5E0 lb/MWh.	SO ₂ CEMS.
	c. Mercury (Hg)	1.2E0 lb/TBtu or 1.3E-2 lb/GWh	LEE Testing for 30 days with 10 days maximum per Method 30B run or Hg CEMS or sorbent trap monitoring system only.
2. Coal-fired unit low rank virgin coal	a. Filterable particulate matter (PM)	3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh. ²	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	5.0E-5 lb/MMBtu or 5.0E-1 lb/GWh.	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 3 dscm per run.
	Antimony (Sb)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh.	
	Arsenic (As)	1.1E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Beryllium (Be)	2.0E-1 lb/TBtu or 2.0E-3 lb/GWh.	
	Cadmium (Cd)	3.0E-1 lb/TBtu or 3.0E-3 lb/GWh.	
	Chromium (Cr)	2.8E0 lb/TBtu or 3.0E-2 lb/GWh.	
	Cobalt (Co)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh.	
	Lead (Pb)	1.2E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Manganese (Mn)	4.0E0 lb/TBtu or 5.0E-2 lb/GWh.	
	Nickel (Ni)	3.5E0 lb/TBtu or 4.0E-2 lb/GWh.	
	Selenium (Se)	5.0E0 lb/TBtu or 6.0E-2 lb/GWh.	
	b. Hydrogen chloride (HCl)	2.0E-3 lb/MMBtu or 2.0E-2 lb/MWh.	For Method 26A, collect a minimum of 0.75 dscm per run; for Method 26, collect a minimum of 120 liters per run.

			For ASTM D6348-03 ³ or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO ₂) ⁴	2.0E-1 lb/MMBtu or 1.5E0 lb/MWh.	SO ₂ CEMS.
	c. Mercury (Hg)	4.0E0 lb/TBtu or 4.0E-2 lb/GWh	LEE Testing for 30 days with 10 days maximum per Method 30B run or Hg CEMS or sorbent trap monitoring system only.
3. IGCC unit	a. Filterable particulate matter (PM)	4.0E-2 lb/MMBtu or 4.0E-1 lb/MWh. ²	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	6.0E-5 lb/MMBtu or 5.0E-1 lb/GWh.	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 2 dscm per run.
	Antimony (Sb)	1.4E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Arsenic (As)	1.5E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Beryllium (Be)	1.0E-1 lb/TBtu or 1.0E-3 lb/GWh.	
	Cadmium (Cd)	1.5E-1 lb/TBtu or 2.0E-3 lb/GWh.	
	Chromium (Cr)	2.9E0 lb/TBtu or 3.0E-2 lb/GWh.	
	Cobalt (Co)	1.2E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Lead (Pb)	1.9E+2 lb/TBtu or 1.8E0 lb/GWh.	
	Manganese (Mn)	2.5E0 lb/TBtu or 3.0E-2 lb/GWh.	
	Nickel (Ni)	6.5E0 lb/TBtu or 7.0E-2 lb/GWh.	
	Selenium (Se)	2.2E+1 lb/TBtu or 3.0E-1 lb/GWh.	
	b. Hydrogen chloride (HCl)	5.0E-4 lb/MMBtu or 5.0E-3 lb/MWh.	For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run.
			For ASTM D6348-03 ³ or Method 320, sample for a minimum of 1 hour.
	c. Mercury (Hg)	2.5E0 lb/TBtu or 3.0E-2 lb/GWh	LEE Testing for 30 days with 10 days maximum per Method 30B run or Hg CEMS or sorbent trap monitoring system only.

4. Liquid oil-fired unit—continental (excluding limited-use liquid oil-fired subcategory units)	a. Filterable particulate matter (PM)	3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh. ²	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total HAP metals	8.0E-4 lb/MMBtu or 8.0E-3 lb/MWh.	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 1 dscm per run.
	Antimony (Sb)	1.3E+1 lb/TBtu or 2.0E-1 lb/GWh.	
	Arsenic (As)	2.8E0 lb/TBtu or 3.0E-2 lb/GWh.	
	Beryllium (Be)	2.0E-1 lb/TBtu or 2.0E-3 lb/GWh.	
	Cadmium (Cd)	3.0E-1 lb/TBtu or 2.0E-3 lb/GWh.	
	Chromium (Cr)	5.5E0 lb/TBtu or 6.0E-2 lb/GWh.	
	Cobalt (Co)	2.1E+1 lb/TBtu or 3.0E-1 lb/GWh.	
	Lead (Pb)	8.1E0 lb/TBtu or 8.0E-2 lb/GWh.	
	Manganese (Mn)	2.2E+1 lb/TBtu or 3.0E-1 lb/GWh.	
	Nickel (Ni)	1.1E+2 lb/TBtu or 1.1E0 lb/GWh.	
	Selenium (Se)	3.3E0 lb/TBtu or 4.0E-2 lb/GWh.	
	Mercury (Hg)	2.0E-1 lb/TBtu or 2.0E-3 lb/GWh.	For Method 30B sample volume determination (Section 8.2.4), the estimated Hg concentration should nominally be <1/2; the standard.
	b. Hydrogen chloride (HCl)	2.0E-3 lb/MMBtu or 1.0E-2 lb/MWh.	For Method 26A, collect a minimum of 1 dscm per Run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348-03 ³ or Method 320, sample for a minimum of 1 hour.
	c. Hydrogen fluoride (HF)	4.0E-4 lb/MMBtu or 4.0E-3 lb/MWh.	For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run.
			For ASTM D6348-03 ³ or Method 320, sample for a minimum of 1 hour.
5. Liquid oil-fired unit—non-continental (excluding limited-use liquid oil-fired subcategory units)	a. Filterable particulate matter (PM)	3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh. ²	Collect a minimum of 1 dscm per run.

	OR	OR	
	Total HAP metals	6.0E-4 lb/MMBtu or 7.0E-3 lb/MWh.	Collect a minimum of 1 dscm per run.
	OR	OR	
	Individual HAP metals:		Collect a minimum of 2 dscm per run.
	Antimony (Sb)	2.2E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Arsenic (As)	4.3E0 lb/TBtu or 8.0E-2 lb/GWh.	
	Beryllium (Be)	6.0E-1 lb/TBtu or 3.0E-3 lb/GWh.	
	Cadmium (Cd)	3.0E-1 lb/TBtu or 3.0E-3 lb/GWh.	
	Chromium (Cr)	3.1E+1 lb/TBtu or 3.0E-1 lb/GWh.	
	Cobalt (Co)	1.1E+2 lb/TBtu or 1.4E0 lb/GWh.	
	Lead (Pb)	4.9E0 lb/TBtu or 8.0E-2 lb/GWh.	
	Manganese (Mn)	2.0E+1 lb/TBtu or 3.0E-1 lb/GWh.	
	Nickel (Ni)	4.7E+2 lb/TBtu or 4.1E0 lb/GWh.	
	Selenium (Se)	9.8E0 lb/TBtu or 2.0E-1 lb/GWh.	
	Mercury (Hg)	4.0E-2 lb/TBtu or 4.0E-4 lb/GWh.	For Method 30B sample volume determination (Section 8.2.4), the estimated Hg concentration should nominally be <1/2; the standard.
	b. Hydrogen chloride (HCl)	2.0E-4 lb/MMBtu or 2.0E-3 lb/MWh.	For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348-03 ³ or Method 320, sample for a minimum of 2 hours.
	c. Hydrogen fluoride (HF)	6.0E-5 lb/MMBtu or 5.0E-4 lb/MWh.	For Method 26A, collect a minimum of 3 dscm per run. For ASTM D6348-03 ³ or Method 320, sample for a minimum of 2 hours.
6. Solid oil-derived fuel-fired unit	a. Filterable particulate matter (PM)	8.0E-3 lb/MMBtu or 9.0E-2 lb/MWh. ²	Collect a minimum of 1 dscm per run.
	OR	OR	
	Total non-Hg HAP metals	4.0E-5 lb/MMBtu or 6.0E-1 lb/GWh.	Collect a minimum of 1 dscm per run.
	OR	OR	

	Individual HAP metals	Collect a minimum of 3 dscm per run.	
	Antimony (Sb)	8.0E-1 lb/TBtu or 7.0E-3 lb/GWh.	
	Arsenic (As)	3.0E-1 lb/TBtu or 5.0E-3 lb/GWh.	
	Beryllium (Be)	6.0E-2 lb/TBtu or 5.0E-4 lb/GWh.	
	Cadmium (Cd)	3.0E-1 lb/TBtu or 4.0E-3 lb/GWh.	
	Chromium (Cr)	8.0E-1 lb/TBtu or 2.0E-2 lb/GWh.	
	Cobalt (Co)	1.1E0 lb/TBtu or 2.0E-2 lb/GWh.	
	Lead (Pb)	8.0E-1 lb/TBtu or 2.0E-2 lb/GWh.	
	Manganese (Mn)	2.3E0 lb/TBtu or 4.0E-2 lb/GWh.	
	Nickel (Ni)	9.0E0 lb/TBtu or 2.0E-1 lb/GWh.	
	Selenium (Se)	1.2E0 lb/TBtu or 2.0E-2 lb/GWh.	
	b. Hydrogen chloride (HCl)	5.0E-3 lb/MMBtu or 8.0E-2 lb/MWh.	For Method 26A, collect a minimum of 0.75 dscm per run; for Method 26, collect a minimum of 120 liters per run.
			For ASTM D6348-03 ³ or Method 320, sample for a minimum of 1 hour.
	OR		
	Sulfur dioxide (SO ₂) ⁴	3.0E-1 lb/MMBtu or 2.0E0 lb/MWh.	SO ₂ CEMS.
	c. Mercury (Hg)	2.0E-1 lb/TBtu or 2.0E-3 lb/GWh.	LEE Testing for 30 days with 10 days maximum per Method 30B run or Hg CEMS or Sorbent trap monitoring system only.

¹ For LEE emissions testing for total PM, total HAP metals, individual HAP metals, HCl, and HF, the required minimum sampling volume must be increased nominally by a factor of two.

² Gross electric output.

³ Incorporated by reference, see §63.14.

⁴ You may not use the alternate SO₂ limit if your EGU does not have some form of FGD system and SO₂ CEMS installed.

[77 FR 23405, Apr. 19, 2012]

Table 3 to Subpart UUUUU of Part 63—Work Practice Standards

As stated in §§63.9991, you must comply with the following applicable work practice standards:

If your EGU is . . .	You must meet the following . . .
1. An existing EGU	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in §63.10021(e).
2. A new or reconstructed EGU	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in §63.10021(e).
3. A coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU during startup	You must operate all CMS during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). For startup of a unit, you must use clean fuels, either natural gas or distillate oil or a combination of clean fuels for ignition. Once you convert to firing coal, residual oil, or solid oil-derived fuel, you must engage all of the applicable control technologies except dry scrubber and SCR. You must start your dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. You must comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown in this subpart. You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in §63.10011(g) and §63.10021(h) and (i).
4. A coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU during shutdown	You must operate all CMS during shutdown. Shutdown means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use) or at the point of no fuel being fired in the boiler. Shutdown ends when there is both no electricity being generated and no fuel being fired in the boiler. During shutdown, you must operate all applicable control technologies while firing coal, residual oil, or solid oil-derived fuel. You must comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown in this subpart. You must keep records during periods of startup. You must provide reports concerning activities and periods of startup, as specified in §63.10011(g) and §63.10021(h) and (i).

Table 4 to Subpart UUUUU of Part 63—Operating Limits for EGUs

As stated in §63.9991, you must comply with the applicable operating limits:

If you demonstrate compliance using . . .	You must meet these operating limits . . .
1. PM CPMS for an existing EGU	Maintain the 30-boiler operating day rolling average PM CPMS output at or below the highest 1-hour average measured during the most recent performance test demonstrating compliance with the filterable PM, total non-mercury HAP metals (total HAP metals, for liquid oil-fired units), or individual non-mercury HAP metals (individual HAP metals including Hg, for liquid oil-fired units) emissions limitation(s).
2. PM CPMS for a new EGU	Maintain the 30-boiler operating day rolling average PM CPMS output determined in accordance with the requirements of §63.10023(b)(2) and obtained during the most recent performance test run demonstrating compliance with the filterable PM, total non-mercury HAP metals (total HAP metals, for liquid oil-fired units), or individual non-mercury HAP metals (individual HAP metals including Hg, for liquid oil-fired units) emissions limitation(s).

Table 5 to Subpart UUUUU of Part 63—Performance Testing Requirements

As stated in §63.10007, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:¹

To conduct a performance test for the following pollutant . . .	Using . . .	You must perform the following activities, as applicable to your input- or output-based emission limit . . .	Using² . . .
1. Filterable Particulate matter (PM)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at Appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at Appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at Appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. ³
		d. Measure the moisture content of the stack gas	Method 4 at Appendix A-3 to part 60 of this chapter.
		e. Measure the filterable PM concentration	Method 5 at Appendix A-3 to part 60 of this chapter.
			For positive pressure fabric filters, Method 5D at Appendix A-3 to part 60 of this chapter for filterable PM emissions.
			Note that the Method 5 front half temperature shall be 160° ±14 °C (320° ±25 °F).
		f. Convert emissions concentration to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).
	OR	OR	
	PM CEMS	a. Install, certify, operate, and maintain the PM CEMS	Performance Specification 11 at Appendix B to part 60 of this chapter and Procedure 2 at Appendix F to Part 60 of this chapter.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).
2. Total or individual non-Hg HAP metals	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at Appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at Appendix A-1 or A-2 to part 60 of this chapter.

		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at Appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. ³
		d. Measure the moisture content of the stack gas	Method 4 at Appendix A-3 to part 60 of this chapter.
		e. Measure the HAP metals emissions concentrations and determine each individual HAP metals emissions concentration, as well as the total filterable HAP metals emissions concentration and total HAP metals emissions concentration	Method 29 at Appendix A-8 to part 60 of this chapter. For liquid oil-fired units, Hg is included in HAP metals and you may use Method 29, Method 30B at Appendix A-8 to part 60 of this chapter; for Method 29, you must report the front half and back half results separately.
		f. Convert emissions concentrations (individual HAP metals, total filterable HAP metals, and total HAP metals) to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).
3. Hydrogen chloride (HCl) and hydrogen fluoride (HF)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at Appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at Appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at Appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. ³
		d. Measure the moisture content of the stack gas	Method 4 at Appendix A-3 to part 60 of this chapter.
		e. Measure the HCl and HF emissions concentrations	Method 26 or Method 26A at Appendix A-8 to part 60 of this chapter or Method 320 at Appendix A to part 63 of this chapter or ASTM 6348-03 ³ with (1) additional quality assurance measures in footnote ⁴ and (2) spiking levels nominally no greater than two times the level corresponding to the applicable emission limit. Method 26A must be used if there are entrained water droplets in the exhaust stream.
		f. Convert emissions concentration to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).
	OR	OR	
	HCl and/or HF CEMS	a. Install, certify, operate, and maintain the HCl or HF CEMS	Appendix B of this subpart.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass

		operating day rolling average lb/MMBtu or lb/MWh emissions rates	emissions rate and electrical output data (see §63.10007(e)).
4. Mercury (Hg)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at Appendix A-1 to part 60 of this chapter or Method 30B at Appendix A-8 for Method 30B point selection.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at Appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at Appendix A-1 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. ³
		d. Measure the moisture content of the stack gas	Method 4 at Appendix A-3 to part 60 of this chapter.
		e. Measure the Hg emission concentration	Method 30B at Appendix A-8 to part 60 of this chapter, ASTM D6784 ³ , or Method 29 at Appendix A-8 to part 60 of this chapter; for Method 29, you must report the front half and back half results separately.
		f. Convert emissions concentration to lb/TBtu or lb/GWh emission rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).
	OR	OR	
		Hg CEMS a. Install, certify, operate, and maintain the CEMS	Sections 3.2.1 and 5.1 of Appendix A of this subpart.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/TBtu or lb/GWh emissions rates	Section 6 of Appendix A to this subpart.
	OR	OR	
	Sorbent trap monitoring system	a. Install, certify, operate, and maintain the sorbent trap monitoring system	Sections 3.2.2 and 5.2 of Appendix A to this subpart.
		b. Install, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert emissions concentrations to 30 boiler operating day rolling average lb/TBtu or lb/GWh emissions rates	Section 6 of Appendix A to this subpart.
	OR	OR	
	LEE testing	a. Select sampling ports location and the number of traverse points	Single point located at the 10% centroidal area of the duct at a port location per Method 1 at Appendix A-1 to part 60 of this chapter or Method

			30B at Appendix A-8 for Method 30B point selection.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G, or 2H at Appendix A-1 or A-2 to part 60 of this chapter or flow monitoring system certified per Appendix A of this subpart.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at Appendix A-1 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981, ³ or diluent gas monitoring systems certified according to Part 75 of this chapter.
		d. Measure the moisture content of the stack gas	Method 4 at Appendix A-3 to part 60 of this chapter, or moisture monitoring systems certified according to part 75 of this chapter.
		e. Measure the Hg emission concentration	Method 30B at Appendix A-8 to part 60 of this chapter; perform a 30 operating day test, with a maximum of 10 operating days per run (<i>i.e.</i> , per pair of sorbent traps) or sorbent trap monitoring system or Hg CEMS certified per Appendix A of this subpart.
		f. Convert emissions concentrations from the LEE test to lb/TBtu or lb/GWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).
		g. Convert average lb/TBtu or lb/GWh Hg emission rate to lb/year, if you are attempting to meet the 22.0 lb/year threshold	Potential maximum annual heat input in TBtu or potential maximum electricity generated in GWh.
5. Sulfur dioxide (SO ₂)	SO ₂ CEMS	a. Install, certify, operate, and maintain the CEMS	Part 75 of this chapter and §§63.10010(a) and (f).
		b. Install, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and electrical output data (see §63.10007(e)).

¹Regarding emissions data collected during periods of startup or shutdown, see §§63.10020(b) and (c) and §63.10021(h).

²See Tables 1 and 2 to this subpart for required sample volumes and/or sampling run times.

³Incorporated by reference, see §63.14.

⁴When using ASTM D6348-03, the following conditions must be met: (1) The test plan preparation and implementation in the Annexes to ASTM D6348-03, Sections A1 through A8 are mandatory; (2) For ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent (%)R must be determined for each target analyte (see Equation A5.5); (3) For the ASTM D6348-03 test data to be acceptable for a target analyte, %R must be 70% ≤ R ≤ 130%; and (4) The %R value for each compound must be reported in the test report and all field measurements corrected with the calculated %R value for that compound using the following equation:

$$\text{Reported Result} = \frac{(\text{Measured Concentration in Stack})}{\%R} \times 100$$

[77 FR 9464, Feb. 16, 2012, as amended at 78 FR 24091, Apr. 24, 2013]

Table 6 to Subpart UUUUU of Part 63—Establishing PM CPMS Operating Limits

As stated in §63.10007, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And you choose to establish PM CPMS operating limits, you must . . .	And . . .	Using . . .	According to the following procedures . . .
1. Filterable Particulate matter (PM), total non-mercury HAP metals, individual non-mercury HAP metals, total HAP metals, or individual HAP metals for an existing EGU	Install, certify, maintain, and operate a PM CPMS for monitoring emissions discharged to the atmosphere according to §63.10010(h)(1)	Establish a site-specific operating limit in units of PM CPMS output signal (e.g., milliamps, mg/acm, or other raw signal)	Data from the PM CPMS and the PM or HAP metals performance tests	1. Collect PM CPMS output data during the entire period of the performance tests. 2. Record the average hourly PM CPMS output for each test run in the three run performance test. 3. Determine the highest 1-hour average PM CPMS measured during the performance test demonstrating compliance with the filterable PM or HAP metals emissions limitations.
2. Filterable Particulate matter (PM), total non-mercury HAP metals, individual non-mercury HAP metals, total HAP metals, or individual HAP metals for a new EGU	Install, certify, maintain, and operate a PM CPMS for monitoring emissions discharged to the atmosphere according to §63.10010(h)(1)	Establish a site-specific operating limit in units of PM CPMS output signal (e.g., milliamps, mg/acm, or other raw signal)	Data from the PM CPMS and the PM or HAP metals performance tests	1. Collect PM CPMS output data during the entire period of the performance tests. 2. Record the average hourly PM CPMS output for each test run in the performance test. 3. Determine the PM CPMS operating limit in accordance with the requirements of §63.10023(b)(2) from data obtained during the performance test demonstrating compliance with the filterable PM or HAP metals emissions limitations.

[78 FR 24091, Apr. 24, 2013]

Table 7 to Subpart UUUUU of Part 63—Demonstrating Continuous Compliance

As stated in §63.10021, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you use one of the following to meet applicable emissions limits, operating limits, or work practice standards . . .	You demonstrate continuous compliance by . . .
1. CEMS to measure filterable PM, SO ₂ , HCl, HF, or Hg emissions, or using a sorbent trap monitoring system to measure Hg	Calculating the 30- (or 90-) boiler operating day rolling arithmetic average emissions rate in units of the applicable emissions standard basis at the end of each boiler operating day using all of the quality assured hourly average CEMS or sorbent trap data for the previous 30- (or 90-) boiler operating days, excluding data recorded during periods of startup or shutdown.

2. PM CPMS to measure compliance with a parametric operating limit	Calculating the 30- (or 90-) boiler operating day rolling arithmetic average of all of the quality assured hourly average PM CPMS output data (e.g., milligrams, PM concentration, raw data signal) collected for all operating hours for the previous 30- (or 90-) boiler operating days, excluding data recorded during periods of startup or shutdown.
3. Site-specific monitoring using CMS for liquid oil-fired EGUs for HCl and HF emission limit monitoring	If applicable, by conducting the monitoring in accordance with an approved site-specific monitoring plan.
4. Quarterly performance testing for coal-fired, solid oil derived fired, or liquid oil-fired EGUs to measure compliance with one or more non-PM (or its alternative emission limits) applicable emissions limit in Table 1 or 2, or PM (or its alternative emission limits) applicable emissions limit in Table 2	Calculating the results of the testing in units of the applicable emissions standard.
5. Conducting periodic performance tune-ups of your EGU(s)	Conducting periodic performance tune-ups of your EGU(s), as specified in §63.10021(e).
6. Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during startup	Operating in accordance with Table 3.
7. Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during shutdown	Operating in accordance with Table 3.

[78 FR 24092, Apr. 24, 2013]

Table 8 to Subpart UUUUU of Part 63—Reporting Requirements

As stated in §63.10031, you must comply with the following requirements for reports:

You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in §63.10031(c)(1) through (4); and b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	Semiannually according to the requirements in §63.10031(b).
	c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.10031(d). If there were periods during which the CMSs, including continuous emissions monitoring systems and continuous parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.10031(e)	

Table 9 to Subpart UUUUU of Part 63—Applicability of General Provisions to Subpart UUUUU

As stated in §63.10040, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Applies to subpart UUUUU
§63.1	Applicability	Yes.
§63.2	Definitions	Yes. Additional terms defined in §63.10042.
§63.3	Units and Abbreviations	Yes.
§63.4	Prohibited Activities and Circumvention	Yes.
§63.5	Preconstruction Review and Notification Requirements	Yes.
§63.6(a), (b)(1)-(b)(5), (b)(7), (c), (f)(2)-(3), (g), (h)(2)-(h)(9), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes.
§63.6(e)(1)(i)	General Duty to minimize emissions	No. See §63.10000(b) for general duty requirement.
§63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	No.
§63.6(e)(3)	SSM Plan requirements	No.
§63.6(f)(1)	SSM exemption	No.
§63.6(h)(1)	SSM exemption	No.
§63.7(a), (b), (c), (d), (e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§63.7(e)(1)	Performance testing	No. See §63.10007.
§63.8	Monitoring Requirements	Yes.
§63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No. See §63.10000(b) for general duty requirement.
§63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS	No.
§63.8(d)(3)	Written procedures for CMS	Yes, except for last sentence, which refers to an SSM plan. SSM plans are not required.
§63.9	Notification requirements	Yes, except for the 60-day notification prior to conducting a performance test in §63.9(d); instead use a 30-day notification period per §63.10030(d).
§63.10(a), (b)(1), (c), (d)(1)-(2), (e), and (f)	Recordkeeping and Reporting Requirements	Yes, except for the requirements to submit written reports under §63.10(e)(3)(v).
§63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. See 63.10001 for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§63.10(b)(2)(iii)	Maintenance records	Yes.
§63.10(b)(2)(iv)	Actions taken to minimize	No.

	emissions during SSM	
§63.10(b)(2)(v)	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.
§63.10(b)(2)(vii)-(ix)	Other CMS requirements	Yes.
§63.10(b)(3),and (d)(3)-(5)		No.
§63.10(c)(7)	Additional recordkeeping requirements for CMS—identifying exceedances and excess emissions	Yes.
§63.10(c)(8)	Additional recordkeeping requirements for CMS—identifying exceedances and excess emissions	Yes.
§63.10(c)(10)	Recording nature and cause of malfunctions	No. See 63.10032(g) and (h) for malfunctions recordkeeping requirements.
§63.10(c)(11)	Recording corrective actions	No. See 63.10032(g) and (h) for malfunctions recordkeeping requirements.
§63.10(c)(15)	Use of SSM Plan	No.
§63.10(d)(5)	SSM reports	No. See 63.10021(h) and (i) for malfunction reporting requirements.
§63.11	Control Device Requirements	No.
§63.12	State Authority and Delegation	Yes.
§63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9)	Reserved	No.

[78 FR 24092, Apr. 24, 2013]

Appendix A to Subpart UUUUU of Part 63—Hg Monitoring Provisions

1. GENERAL PROVISIONS

1.1 *Applicability.* These monitoring provisions apply to the measurement of total vapor phase mercury (Hg) in emissions from electric utility steam generating units, using either a mercury continuous emission monitoring system (Hg CEMS) or a sorbent trap monitoring system. The Hg CEMS or sorbent trap monitoring system must be capable of measuring the total vapor phase mercury in units of the applicable emissions standard (e.g., lb/TBtu or lb/GWh), regardless of speciation.

1.2 *Initial Certification and Recertification Procedures.* The owner or operator of an affected unit that uses a Hg CEMS or a sorbent trap monitoring system together with other necessary monitoring components to account for Hg

emissions in units of the applicable emissions standard shall comply with the initial certification and recertification procedures in section 4 of this appendix.

1.3 Quality Assurance and Quality Control Requirements. The owner or operator of an affected unit that uses a Hg CEMS or a sorbent trap monitoring system together with other necessary monitoring components to account for Hg emissions in units of the applicable emissions standard shall meet the applicable quality assurance requirements in section 5 of this appendix.

1.4 Missing Data Procedures. The owner or operator of an affected unit is not required to substitute for missing data from Hg CEMS or sorbent trap monitoring systems. Any process operating hour for which quality-assured Hg concentration data are not obtained is counted as an hour of monitoring system downtime.

2. MONITORING OF Hg EMISSIONS

2.1 Monitoring System Installation Requirements. Flue gases from the affected units under this subpart vent to the atmosphere through a variety of exhaust configurations including single stacks, common stack configurations, and multiple stack configurations. For each of these configurations, §63.10010(a) specifies the appropriate location(s) at which to install continuous monitoring systems (CMS). These CMS installation provisions apply to the Hg CEMS, sorbent trap monitoring systems, and other continuous monitoring systems that provide data for the Hg emissions calculations in section 6.2 of this appendix.

2.2 Primary and Backup Monitoring Systems. In the electronic monitoring plan described in section 7.1.1.2.1 of this appendix, you must designate a primary Hg CEMS or sorbent trap monitoring system. The primary system must be used to report hourly Hg concentration values when the system is able to provide quality-assured data, *i.e.*, when the system is “in control”. However, to increase data availability in the event of a primary monitoring system outage, you may install, operate, maintain, and calibrate backup monitoring systems, as follows:

2.2.1 Redundant Backup Systems. A redundant backup monitoring system may be either a separate Hg CEMS with its own probe, sample interface, and analyzer, or a separate sorbent trap monitoring system. A redundant backup system is one that is permanently installed at the unit or stack location, and is kept on “hot standby” in case the primary monitoring system is unable to provide quality-assured data. A redundant backup system must be represented as a unique monitoring system in the electronic monitoring plan. Each redundant backup monitoring system must be certified according to the applicable provisions in section 4 of this appendix and must meet the applicable on-going QA requirements in section 5 of this appendix.

2.2.2 Non-redundant Backup Monitoring Systems. A non-redundant backup monitoring system is a separate Hg CEMS or sorbent trap system that has been certified at a particular unit or stack location, but is not permanently installed at that location. Rather, the system is kept on “cold standby” and may be reinstalled in the event of a primary monitoring system outage. A non-redundant backup monitoring system must be represented as a unique monitoring system in the electronic monitoring plan. Non-redundant backup Hg CEMS must complete the same certification tests as the primary monitoring system, with one exception. The 7-day calibration error test is not required for a non-redundant backup Hg CEMS. Except as otherwise provided in section 2.2.4.5 of this appendix, a non-redundant backup monitoring system may only be used for 720 hours per year at a particular unit or stack location.

2.2.3 Temporary Like-kind Replacement Analyzers. When a primary Hg analyzer needs repair or maintenance, you may temporarily install a like-kind replacement analyzer, to minimize data loss. Except as otherwise provided in section 2.2.4.5 of this appendix, a temporary like-kind replacement analyzer may only be used for 720 hours per year at a particular unit or stack location. The analyzer must be represented as a component of the primary Hg CEMS, and must be assigned a 3-character component ID number, beginning with the prefix “LK”.

2.2.4 Quality Assurance Requirements for Non-redundant Backup Monitoring Systems and Temporary Like-kind Replacement Analyzers. To quality-assure the data from non-redundant backup Hg monitoring systems and temporary like-kind replacement Hg analyzers, the following provisions apply:

2.2.4.1 When a certified non-redundant backup sorbent trap monitoring system is brought into service, you must follow the procedures for routine day-to-day operation of the system, in accordance with Performance Specification (PS) 12B in appendix B to part 60 of this chapter.

2.2.4.2 When a certified non-redundant backup Hg CEMS or a temporary like-kind replacement Hg analyzer is brought into service, a calibration error test and a linearity check must be performed and passed. A single point system integrity check is also required, unless a NIST-traceable source of oxidized Hg was used for the calibration error test.

2.2.4.3 Each non-redundant backup Hg CEMS or temporary like-kind replacement Hg analyzer shall comply with all required daily, weekly, and quarterly quality-assurance test requirements in section 5 of this appendix, for as long as the system or analyzer remains in service.

2.2.4.4 For the routine, on-going quality-assurance of a non-redundant backup Hg monitoring system, a relative accuracy test audit (RATA) must be performed and passed at least once every 8 calendar quarters at the unit or stack location(s) where the system will be used.

2.2.4.5 To use a non-redundant backup Hg monitoring system or a temporary like-kind replacement analyzer for more than 720 hours per year at a particular unit or stack location, a RATA must first be performed and passed at that location.

3. MERCURY EMISSIONS MEASUREMENT METHODS

The following definitions, equipment specifications, procedures, and performance criteria are applicable to the measurement of vapor-phase Hg emissions from electric utility steam generating units, under relatively low-dust conditions (*i.e.*, sampling in the stack or duct after all pollution control devices). The analyte measured by these procedures and specifications is total vapor-phase Hg in the flue gas, which represents the sum of elemental Hg (Hg⁰, CAS Number 7439-97-6) and oxidized forms of Hg.

3.1 Definitions.

3.1.1 *Mercury Continuous Emission Monitoring System or Hg CEMS* means all of the equipment used to continuously determine the total vapor phase Hg concentration. The measurement system may include the following major subsystems: sample acquisition, Hg⁺² to Hg⁰ converter, sample transport, sample conditioning, flow control/gas manifold, gas analyzer, and data acquisition and handling system (DAHS). Hg CEMS may be nominally real-time or time-integrated, batch sampling systems that sample the gas on an intermittent basis and concentrate on a collection medium before intermittent analysis and reporting.

3.1.2 *Sorbent Trap Monitoring System* means the equipment required to monitor Hg emissions continuously by using paired sorbent traps containing iodated charcoal (IC) or other suitable sorbent medium. The monitoring system consists of a probe, paired sorbent traps, an umbilical line, moisture removal components, an airtight sample pump, a gas flow meter, and an automated data acquisition and handling system. The system samples the stack gas at a constant proportional rate relative to the stack gas volumetric flow rate. The sampling is a batch process. The average Hg concentration in the stack gas for the sampling period is determined, in units of micrograms per dry standard cubic meter (µg/dscm), based on the sample volume measured by the gas flow meter and the mass of Hg collected in the sorbent traps.

3.1.3 *NIST* means the National Institute of Standards and Technology, located in Gaithersburg, Maryland.

3.1.4 *NIST-Traceable Elemental Hg Standards* means either: compressed gas cylinders having known concentrations of elemental Hg, which have been prepared according to the "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards"; or calibration gases having known concentrations of elemental Hg, produced by a generator that meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators" or an interim version of that protocol.

3.1.5 *NIST-Traceable Source of Oxidized Hg* means a generator that is capable of providing known concentrations of vapor phase mercuric chloride (HgCl₂), and that meets the performance requirements of the "EPA Traceability Protocol for Qualification and Certification of Mercuric Chloride Gas Generators" or an interim version of that protocol.

3.1.6 *Calibration Gas* means a NIST-traceable gas standard containing a known concentration of elemental or oxidized Hg that is produced and certified in accordance with an EPA traceability protocol.

3.1.7 *Span Value* means a conservatively high estimate of the Hg concentrations to be measured by a CEMS. The span value of a Hg CEMS should be set to approximately twice the concentration corresponding to the emission standard, rounded off as appropriate (see section 3.2.1.4.2 of this appendix).

3.1.8 *Zero-Level Gas* means calibration gas containing a Hg concentration that is below the level detectable by the Hg gas analyzer in use.

3.1.9 *Low-Level Gas* means calibration gas with a concentration that is 20 to 30 percent of the span value.

3.1.10 *Mid-Level Gas* means calibration gas with a concentration that is 50 to 60 percent of the span value.

3.1.11 *High-Level Gas* means calibration gas with a concentration that is 80 to 100 percent of the span value.

3.1.12 *Calibration Error Test* means a test designed to assess the ability of a Hg CEMS to measure the concentrations of calibration gases accurately. A zero-level gas and an upscale gas are required for this test. For the upscale gas, either a mid-level gas or a high-level gas may be used, and the gas may either be an elemental or oxidized Hg standard.

3.1.13 *Linearity Check* means a test designed to determine whether the response of a Hg analyzer is linear across its measurement range. Three elemental Hg calibration gas standards (*i.e.*, low, mid, and high-level gases) are required for this test.

3.1.14 *System Integrity Check* means a test designed to assess the transport and measurement of oxidized Hg by a Hg CEMS. Oxidized Hg standards are used for this test. For a three-level system integrity check, low, mid, and high-level calibration gases are required. For a single-level check, either a mid-level gas or a high-level gas may be used.

3.1.15 *Cycle Time Test* means a test designed to measure the amount of time it takes for a Hg CEMS, while operating normally, to respond to a known step change in gas concentration. For this test, a zero gas and a high-level gas are required. The high-level gas may be either an elemental or an oxidized Hg standard.

3.1.16 *Relative Accuracy Test Audit* or *RATA* means a series of nine or more test runs, directly comparing readings from a Hg CEMS or sorbent trap monitoring system to measurements made with a reference stack test method. The relative accuracy (RA) of the monitoring system is expressed as the absolute mean difference between the monitoring system and reference method measurements plus the absolute value of the 2.5 percent error confidence coefficient, divided by the mean value of the reference method measurements.

3.1.17 *Unit Operating Hour* means a clock hour in which a unit combusts any fuel, either for part of the hour or for the entire hour.

3.1.18 *Stack Operating Hour* means a clock hour in which gases flow through a particular monitored stack or duct (either for part of the hour or for the entire hour), while the associated unit(s) are combusting fuel.

3.1.19 *Operating Day* means a calendar day in which a source combusts any fuel.

3.1.20 *Quality Assurance (QA) Operating Quarter* means a calendar quarter in which there are at least 168 unit or stack operating hours (as defined in this section).

3.1.21 *Grace Period* means a specified number of unit or stack operating hours after the deadline for a required quality-assurance test of a continuous monitor has passed, in which the test may be performed and passed without loss of data.

3.2 *Continuous Monitoring Methods.*

3.2.1 *Hg CEMS.* A typical Hg CEMS is shown in Figure A-1. The CEMS in Figure A-1 is a dilution extractive system, which measures Hg concentration on a wet basis, and is the most commonly-used type of Hg CEMS. Other system

designs may be used, provided that the CEMS meets the performance specifications in section 4.1.1 of this appendix.

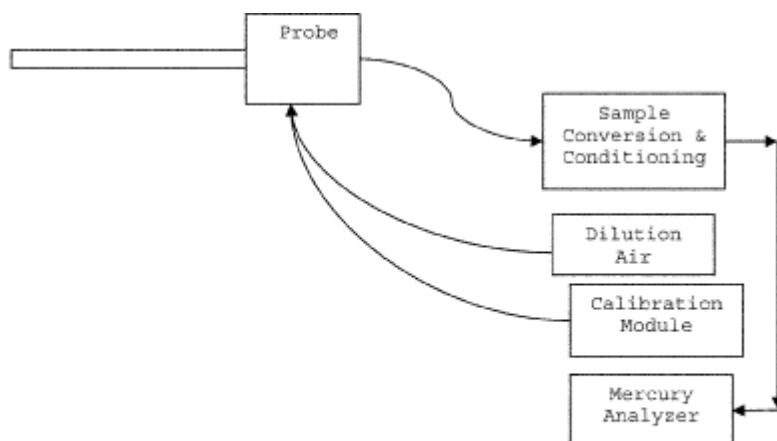


FIGURE A-1. TYPICAL MERCURY CEMS

3.2.1.1 Equipment Specifications.

3.2.1.1.1 Materials of Construction. All wetted sampling system components, including probe components prior to the point at which the calibration gas is introduced, must be chemically inert to all Hg species. Materials such as perfluoroalkoxy (PFA) TeflonTM, quartz, and treated stainless steel (SS) are examples of such materials.

3.2.1.1.2 Temperature Considerations. All system components prior to the Hg⁺² to Hg⁰ converter must be maintained at a sample temperature above the acid gas dew point.

3.2.1.1.3 Measurement System Components.

3.2.1.1.3.1 Sample Probe. The probe must be made of the appropriate materials as noted in paragraph 3.2.1.1.1 of this section, heated when necessary, as described in paragraph 3.2.1.1.3.4 of this section, and configured with ports for introduction of calibration gases.

3.2.1.1.3.2 Filter or Other Particulate Removal Device. The filter or other particulate removal device is part of the measurement system, must be made of appropriate materials, as noted in paragraph 3.2.1.1.1 of this section, and must be included in all system tests.

3.2.1.1.3.3 Sample Line. The sample line that connects the probe to the converter, conditioning system, and analyzer must be made of appropriate materials, as noted in paragraph 3.2.1.1.1 of this section.

3.2.1.1.3.4 Conditioning Equipment. For wet basis systems, such as the one shown in Figure A-1, the sample must be kept above its dew point either by: heating the sample line and all sample transport components up to the inlet of the analyzer (and, for hot-wet extractive systems, also heating the analyzer); or diluting the sample prior to analysis using a dilution probe system. The components required for these operations are considered to be conditioning equipment. For dry basis measurements, a condenser, dryer or other suitable device is required to remove moisture continuously from the sample gas, and any equipment needed to heat the probe or sample line to avoid condensation prior to the moisture removal component is also required.

3.2.1.1.3.5 Sampling Pump. A pump is needed to push or pull the sample gas through the system at a flow rate sufficient to minimize the response time of the measurement system. If a mechanical sample pump is used and its surfaces are in contact with the sample gas prior to detection, the pump must be leak free and must be constructed of a material that is non-reactive to the gas being sampled (see paragraph 3.2.1.1.1 of this section). For dilution-type measurement systems, such as the system shown in Figure A-1, an ejector pump (eductor) may be used to create a

sufficient vacuum that sample gas will be drawn through a critical orifice at a constant rate. The ejector pump must be constructed of any material that is non-reactive to the gas being sampled.

3.2.1.1.3.6 Calibration Gas System(s). Design and equip each Hg CEMS to permit the introduction of known concentrations of elemental Hg and HgCl₂ separately, at a point preceding the sample extraction filtration system, such that the entire measurement system can be checked. The calibration gas system(s) must be designed so that the flow rate exceeds the sampling system flow requirements and that the gas is delivered to the CEMS at atmospheric pressure.

3.2.1.1.3.7 Sample Gas Delivery. The sample line may feed directly to either a converter, a by-pass valve (for Hg speciating systems), or a sample manifold. All valve and/or manifold components must be made of material that is non-reactive to the gas sampled and the calibration gas, and must be configured to safely discharge any excess gas.

3.2.1.1.3.8 Hg Analyzer. An instrument is required that continuously measures the total vapor phase Hg concentration in the gas stream. The analyzer may also be capable of measuring elemental and oxidized Hg separately.

3.2.1.1.3.9 Data Recorder. A recorder, such as a computerized data acquisition and handling system (DAHS), digital recorder, or data logger, is required for recording measurement data.

3.2.1.2 Reagents and Standards.

3.2.1.2.1 NIST Traceability. Only NIST-certified or NIST-traceable calibration gas standards and reagents (as defined in paragraphs 3.1.4 and 3.1.5 of this section) shall be used for the tests and procedures required under this subpart. Calibration gases with known concentrations of Hg⁰ and HgCl₂ are required. Special reagents and equipment may be needed to prepare the Hg⁰ and HgCl₂ gas standards (e.g., NIST-traceable solutions of HgCl₂ and gas generators equipped with mass flow controllers).

3.2.1.2.2 Required Calibration Gas Concentrations.

3.2.1.2.2.1 Zero-Level Gas. A zero-level calibration gas with a Hg concentration below the level detectable by the Hg analyzer is required for calibration error tests and cycle time tests of the CEMS.

3.2.1.2.2.2 Low-Level Gas. A low-level calibration gas with a Hg concentration of 20 to 30 percent of the span value is required for linearity checks and 3-level system integrity checks of the CEMS. Elemental Hg standards are required for the linearity checks and oxidized Hg standards are required for the system integrity checks.

3.2.1.2.2.3 Mid-Level Gas. A mid-level calibration gas with a Hg concentration of 50 to 60 percent of the span value is required for linearity checks and for 3-level system integrity checks of the CEMS, and is optional for calibration error tests and single-level system integrity checks. Elemental Hg standards are required for the linearity checks, oxidized Hg standards are required for the system integrity checks, and either elemental or oxidized Hg standards may be used for the calibration error tests.

3.2.1.2.2.4 High-Level Gas. A high-level calibration gas with a Hg concentration of 80 to 100 percent of the span value is required for linearity checks, 3-level system integrity checks, and cycle time tests of the CEMS, and is optional for calibration error tests and single-level system integrity checks. Elemental Hg standards are required for the linearity checks, oxidized Hg standards are required for the system integrity checks, and either elemental or oxidized Hg standards may be used for the calibration error and cycle time tests.

3.2.1.3 Installation and Measurement Location. For the Hg CEMS and any additional monitoring system(s) needed to convert Hg concentrations to the desired units of measure (i.e., a flow monitor, CO₂ or O₂ monitor, and/or moisture monitor, as applicable), install each monitoring system at a location: that is consistent with 63.10010(a); that represents the emissions exiting to the atmosphere; and where it is likely that the CEMS can pass the relative accuracy test.

3.2.1.4 Monitor Span and Range Requirements. Determine the appropriate span and range value(s) for the Hg CEMS as described in paragraphs 3.2.1.4.1 through 3.2.1.4.3 of this section.

3.2.1.4.1 *Maximum Potential Concentration.* There are three options for determining the maximum potential Hg concentration (MPC). Option 1 applies to coal combustion. You may use a default value of 10 µg/scm for all coal ranks (including coal refuse) except for lignite; for lignite, use 16 µg/scm. If different coals are blended as part of normal operation, use the highest MPC for any fuel in the blend. Option 2 is to base the MPC on the results of site-specific Hg emission testing. This option may be used only if the unit does not have add-on Hg emission controls or a flue gas desulfurization system, or if testing is performed upstream of all emission control devices. If Option 2 is selected, perform at least three test runs at the normal operating load, and the highest Hg concentration obtained in any of the tests shall be the MPC. Option 3 is to use fuel sampling and analysis to estimate the MPC. To make this estimate, use the average Hg content (*i.e.*, the weight percentage) from at least three representative fuel samples, together with other available information, including, but not limited to the maximum fuel feed rate, the heating value of the fuel, and an appropriate F-factor. Assume that all of the Hg in the fuel is emitted to the atmosphere as vapor-phase Hg.

3.2.1.4.2 *Span Value.* To determine the span value of the Hg CEMS, multiply the Hg concentration corresponding to the applicable emissions standard by two. If the result of this calculation is an exact multiple of 10 µg/scm, use the result as the span value. Otherwise, round off the result to either: the next highest integer; the next highest multiple of 5 µg/scm; or the next highest multiple of 10 µg/scm.

3.2.1.4.3 *Analyzer Range.* The Hg analyzer must be capable of reading Hg concentration as high as the MPC.

3.2.2 *Sorbent Trap Monitoring System.* A sorbent trap monitoring system (as defined in paragraph 3.1.2 of this section) may be used as an alternative to a Hg CEMS. If this option is selected, the monitoring system shall be installed, maintained, and operated in accordance with Performance Specification (PS) 12B in Appendix B to part 60 of this chapter. The system shall be certified in accordance with the provisions of section 4.1.2 of this appendix.

3.2.3 *Other Necessary Data Collection.* To convert measured hourly Hg concentrations to the units of the applicable emissions standard (*i.e.*, lb/TBtu or lb/GWh), additional data must be collected, as described in paragraphs 3.2.3.1 through 3.2.3.3 of this section. Any additional monitoring systems needed for this purpose must be certified, operated, maintained, and quality-assured according to the applicable provisions of part 75 of this chapter (see §§63.10010(b) through (d)). The calculation methods for the types of emission limits described in paragraphs 3.2.3.1 and 3.2.3.2 of this section are presented in section 6.2 of this appendix.

3.2.3.1 *Heat Input-Based Emission Limits.* For a heat input-based Hg emission limit (*i.e.*, in lb/TBtu), data from a certified CO₂ or O₂ monitor are needed, along with a fuel-specific F-factor and a conversion constant to convert measured Hg concentration values to the units of the standard. In some cases, the stack gas moisture content must also be considered in making these conversions.

3.2.3.2 *Electrical Output-Based Emission Rates.* If the applicable Hg limit is electrical output-based (*i.e.*, lb/GWh), hourly electrical load data and unit operating times are required in addition to hourly data from a certified stack gas flow rate monitor and (if applicable) moisture data.

3.2.3.3 *Sorbent Trap Monitoring System Operation.* Routine operation of a sorbent trap monitoring system requires the use of a certified stack gas flow rate monitor, to maintain an established ratio of stack gas flow rate to sample flow rate.

4. CERTIFICATION AND RECERTIFICATION REQUIREMENTS

4.1 *Certification Requirements.* All Hg CEMS and sorbent trap monitoring systems and the additional monitoring systems used to continuously measure Hg emissions in units of the applicable emissions standard in accordance with this appendix must be certified in a timely manner, such that the initial compliance demonstration is completed no later than the applicable date in §63.9984(f).

4.1.1 *Hg CEMS.* Table A-1, below, summarizes the certification test requirements and performance specifications for a Hg CEMS. The CEMS may not be used to report quality-assured data until these performance criteria are met. Paragraphs 4.1.1.1 through 4.1.1.5 of this section provide specific instructions for the required tests. All tests must be performed with the affected unit(s) operating (*i.e.*, combusting fuel). Except for the RATA, which must be performed at normal load, no particular load level is required for the certification tests.

4.1.1.1 7-Day Calibration Error Test. Perform the 7-day calibration error test on 7 consecutive source operating days, using a zero-level gas and either a high-level or a mid-level calibration gas standard (as defined in sections 3.1.8, 3.1.10, and 3.1.11 of this appendix). Either elemental or oxidized NIST-traceable Hg standards (as defined in sections 3.1.4 and 3.1.5 of this appendix) may be used for the test. If moisture and/or chlorine is added to the calibration gas, the dilution effect of the moisture and/or chlorine addition on the calibration gas concentration must be accounted for in an appropriate manner. Operate the Hg CEMS in its normal sampling mode during the test. The calibrations should be approximately 24 hours apart, unless the 7-day test is performed over nonconsecutive calendar days. On each day of the test, inject the zero-level and upscale gases in sequence and record the analyzer responses. Pass the calibration gas through all filters, scrubbers, conditioners, and other monitor components used during normal sampling, and through as much of the sampling probe as is practical. Do not make any manual adjustments to the monitor (*i.e.*, resetting the calibration) until after taking measurements at both the zero and upscale concentration levels. If automatic adjustments are made following both injections, conduct the calibration error test such that the magnitude of the adjustments can be determined, and use only the unadjusted analyzer responses in the calculations. Calculate the calibration error (CE) on each day of the test, as described in Table A-1. The CE on each day of the test must either meet the main performance specification or the alternative specification in Table A-1.

4.1.1.2 Linearity Check. Perform the linearity check using low, mid, and high-level concentrations of NIST-traceable elemental Hg standards. Three gas injections at each concentration level are required, with no two successive injections at the same concentration level. Introduce the calibration gas at the gas injection port, as specified in section 3.2.1.1.3.6 of this appendix. Operate the CEMS at its normal operating temperature and conditions. Pass the calibration gas through all filters, scrubbers, conditioners, and other components used during normal sampling, and through as much of the sampling probe as is practical. If moisture and/or chlorine is added to the calibration gas, the dilution effect of the moisture and/or chlorine addition on the calibration gas concentration must be accounted for in an appropriate manner. Record the monitor response from the data acquisition and handling system for each gas injection. At each concentration level, use the average analyzer response to calculate the linearity error (LE), as described in Table A-1. The LE must either meet the main performance specification or the alternative specification in Table A-1.

4.1.1.3 Three-Level System Integrity Check. Perform the 3-level system integrity check using low, mid, and high-level calibration gas concentrations generated by a NIST-traceable source of oxidized Hg. Follow the same basic procedure as for the linearity check. If moisture and/or chlorine is added to the calibration gas, the dilution effect of the moisture and/or chlorine addition on the calibration gas concentration must be accounted for in an appropriate manner. Calculate the system integrity error (SIE), as described in Table A-1. The SIE must either meet the main performance specification or the alternative specification in Table A-1. (NOTE: This test is not required if the CEMS does not have a converter).

Table A-1—Required Certification Tests and Performance Specifications for Hg CEMS

For this required certification test . . .	The main performance specification ¹ is . . .	The alternate performance specification ¹ is . . .	And the conditions of the alternate specification are . . .
7-day calibration error test ²	$ R - A \leq 5.0\%$ of span value, for both the zero and upscale gases, on each of the 7 days	$ R - A \leq 1.0 \mu\text{g/scm}$	The alternate specification may be used on any day of the test.
Linearity check ³	$ R - A_{\text{avg}} \leq 10.0\%$ of the reference gas concentration at each calibration gas level (low, mid, or high)	$ R - A_{\text{avg}} \leq 0.8 \mu\text{g/scm}$	The alternate specification may be used at any gas level.
3-level system integrity check ⁴	$ R - A_{\text{avg}} \leq 10.0\%$ of the reference gas concentration at each calibration gas level	$ R - A_{\text{avg}} \leq 0.8 \mu\text{g/scm}$	The alternate specification may be used at any gas level.
RATA	20.0% RA	$ RM_{\text{avg}} - C_{\text{avg}} \leq 1.0 \mu\text{g/scm}^{**}$	$RM_{\text{avg}} < 5.0 \mu\text{g/scm}$.
Cycle time test ²	15 minutes. ⁵		

¹Note that $|R - A|$ is the absolute value of the difference between the reference gas value and the analyzer reading. $|R - A_{avg}|$ is the absolute value of the difference between the reference gas concentration and the average of the analyzer responses, at a particular gas level.

²Use either elemental or oxidized Hg standards; a mid-level or high-level upscale gas may be used. This test is not required for Hg CEMS that use integrated batch sampling; however, those monitors must be capable of recording at least one Hg concentration reading every 15 minutes.

³Use elemental Hg standards.

⁴Use oxidized Hg standards. Not required if the CEMS does not have a converter.

⁵Stability criteria—Readings change by <2.0% of span or by $\leq 0.5 \mu\text{g}/\text{scm}$, for 2 minutes.

**Note that $|RM_{avg} - C_{avg}|$ is the absolute difference between the mean reference method value and the mean CEMS value from the RATA. The arithmetic difference between RM_{avg} and C_{avg} can be either + or -.

4.1.1.4 *Cycle Time Test*. Perform the cycle time test, using a zero-level gas and a high-level calibration gas.

Either an elemental or oxidized NIST-traceable Hg standard may be used as the high-level gas. Perform the test in two stages—upscale and downscale. The slower of the upscale and downscale response times is the cycle time for the CEMS. Begin each stage of the test by injecting calibration gas after achieving a stable reading of the stack emissions. The cycle time is the amount of time it takes for the analyzer to register a reading that is 95 percent of the way between the stable stack emissions reading and the final, stable reading of the calibration gas concentration. Use the following criterion to determine when a stable reading of stack emissions or calibration gas has been attained—the reading is stable if it changes by no more than 2.0 percent of the span value or $0.5 \mu\text{g}/\text{scm}$ (whichever is less restrictive) for two minutes, or a reading with a change of less than 6.0 percent from the measured average concentration over 6 minutes. Integrated batch sampling type Hg CEMS are exempted from this test; however, these systems must be capable of delivering a measured Hg concentration reading at least once every 15 minutes. If necessary to increase measurement sensitivity of a batch sampling type Hg CEMS for a specific application, you may petition the Administrator for approval of a time longer than 15 minutes between readings.

4.1.1.5 *Relative Accuracy Test Audit (RATA)*. Perform the RATA of the Hg CEMS at normal load. Acceptable Hg reference methods for the RATA include ASTM D6784-02 (Reapproved 2008), “Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)” (incorporated by reference, see §63.14) and Methods 29, 30A, and 30B in appendix A-8 to part 60. When Method 29 or ASTM D6784-02 is used, paired sampling trains are required. To validate a Method 29 or ASTM D6784-02 test run, calculate the relative deviation (RD) using Equation A-1 of this section, and assess the results as follows to validate the run. The RD must not exceed 10 percent, when the average Hg concentration is greater than $1.0 \mu\text{g}/\text{dscm}$. If the average concentration is $\leq 1.0 \mu\text{g}/\text{dscm}$, the RD must not exceed 20 percent. The RD results are also acceptable if the absolute difference between the two Hg concentrations does not exceed $0.2 \mu\text{g}/\text{dscm}$. If the RD specification is met, the results of the two samples shall be averaged arithmetically.

$$RD = \frac{|C_a - C_b|}{C_a + C_b} \times 100 \text{ (Eq. A-1)}$$

Where:

RD = Relative deviation between the Hg concentrations of samples “a” and “b” (percent)

C_a = Hg concentration of Hg sample “a” ($\mu\text{g}/\text{dscm}$)

C_b = Hg concentration of Hg sample “b” ($\mu\text{g}/\text{dscm}$)

4.1.1.5.1 *Special Considerations*. A minimum of nine valid test runs must be performed, directly comparing the CEMS measurements to the reference method. More than nine test runs may be performed. If this option is chosen, the results from a maximum of three test runs may be rejected so long as the total number of test results used to

determine the relative accuracy is greater than or equal to nine; however, all data must be reported including the rejected data. The minimum time per run is 21 minutes if Method 30A is used. If Method 29, Method 30B, or ASTM D6784-02 (Reapproved 2008), "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)" (incorporated by reference, see §63.14) is used, the time per run must be long enough to collect a sufficient mass of Hg to analyze. Complete the RATA within 168 unit operating hours, except when Method 29 or ASTM D6784-02 is used, in which case up to 336 operating hours may be taken to finish the test.

4.1.1.5.2 Calculation of RATA Results. Calculate the relative accuracy (RA) of the monitoring system, on a $\mu\text{g}/\text{scm}$ basis, as described in section 12 of Performance Specification (PS) 2 in Appendix B to part 60 of this chapter (see Equations 2-3 through 2-6 of PS2). For purposes of calculating the relative accuracy, ensure that the reference method and monitoring system data are on a consistent moisture basis, either wet or dry. The CEMS must either meet the main performance specification or the alternative specification in Table A-1.

4.1.1.5.3 Bias Adjustment. Measurement or adjustment of Hg CEMS data for bias is not required.

4.1.2 Sorbent Trap Monitoring Systems. For the initial certification of a sorbent trap monitoring system, only a RATA is required.

4.1.2.1 Reference Methods. The acceptable reference methods for the RATA of a sorbent trap monitoring system are the same as those listed in paragraph 4.1.1.5 of this section.

4.1.2.2 "The special considerations specified in paragraph 4.1.1.5.1 of this section apply to the RATA of a sorbent trap monitoring system. During the RATA, the monitoring system must be operated and quality-assured in accordance with Performance Specification (PS) 12B in Appendix B to part 60 of this chapter with the following exceptions for sorbent trap section 2 breakthrough:

4.1.2.2.1 For stack Hg concentrations $>1 \mu\text{g}/\text{dscm}$, $\leq 10\%$ of section 1 Hg mass;

4.1.2.2.2 For stack Hg concentrations $\leq 1 \mu\text{g}/\text{dscm}$ and $>0.5 \mu\text{g}/\text{dscm}$, $\leq 20\%$ of section 1 Hg mass;

4.1.2.2.3 For stack Hg concentrations $\leq 0.5 \mu\text{g}/\text{dscm}$ and $>0.1 \mu\text{g}/\text{dscm}$, $\leq 50\%$ of section 1 Hg mass; and

4.1.2.2.4 For stack Hg concentrations $\leq 0.1 \mu\text{g}/\text{dscm}$, no breakthrough criterion assuming all other QA/QC specifications are met.

4.1.2.3 The type of sorbent material used by the traps during the RATA must be the same as for daily operation of the monitoring system; however, the size of the traps used for the RATA may be smaller than the traps used for daily operation of the system.

4.1.2.4 Calculation of RATA Results. Calculate the relative accuracy (RA) of the sorbent trap monitoring system, on a $\mu\text{g}/\text{scm}$ basis, as described in section 12 of Performance Specification (PS) 2 in appendix B to part 60 of this chapter (see Equations 2-3 through 2-6 of PS2). For purposes of calculating the relative accuracy, ensure that the reference method and monitoring system data are on a consistent moisture basis, either wet or dry. The main and alternative RATA performance specifications in Table A-1 for Hg CEMS also apply to the sorbent trap monitoring system.

4.1.2.5 Bias Adjustment. Measurement or adjustment of sorbent trap monitoring system data for bias is not required.

4.1.3 Diluent Gas, Flow Rate, and/or Moisture Monitoring Systems. Monitoring systems that are used to measure stack gas volumetric flow rate, diluent gas concentration, or stack gas moisture content, either for routine operation of a sorbent trap monitoring system or to convert Hg concentration data to units of the applicable emission limit, must be certified in accordance with the applicable provisions of part 75 of this chapter.

4.2 Recertification. Whenever the owner or operator makes a replacement, modification, or change to a certified CEMS or sorbent trap monitoring system that may significantly affect the ability of the system to accurately measure or record pollutant or diluent gas concentrations, stack gas flow rates, or stack gas moisture content, the owner or

operator shall recertify the monitoring system. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit operation that may significantly change the concentration or flow profile, the owner or operator shall recertify the monitoring system. The same tests performed for the initial certification of the monitoring system shall be repeated for recertification, unless otherwise specified by the Administrator. Examples of changes that require recertification include: replacement of a gas analyzer; complete monitoring system replacement, and changing the location or orientation of the sampling probe.

5. ONGOING QUALITY ASSURANCE (QA) AND DATA VALIDATION

5.1 Hg CEMS.

5.1.1 *Required QA Tests.* Periodic QA testing of each Hg CEMS is required following initial certification. The required QA tests, the test frequencies, and the performance specifications that must be met are summarized in Table A-2, below. All tests must be performed with the affected unit(s) operating (*i.e.*, combusting fuel). Except for the RATA, which must be performed at normal load, no particular load level is required for the tests. For each test, follow the same basic procedures in section 4.1.1 of this appendix that were used for initial certification.

5.1.2 *Test Frequency.* The frequency for the required QA tests of the Hg CEMS shall be as follows:

5.1.2.1 Calibration error tests of the Hg CEMS are required daily, except during unit outages. Use either NIST-traceable elemental Hg standards or NIST-traceable oxidized Hg standards for these calibrations. Both a zero-level gas and either a mid-level or high-level gas are required for these calibrations.

5.1.2.2 Perform a linearity check of the Hg CEMS in each QA operating quarter, using low-level, mid-level, and high-level NIST-traceable elemental Hg standards. For units that operate infrequently, limited exemptions from this test are allowed for “non-QA operating quarters”. A maximum of three consecutive exemptions for this reason are permitted, following the quarter of the last test. After the third consecutive exemption, a linearity check must be performed in the next calendar quarter or within a grace period of 168 unit or stack operating hours after the end of that quarter. The test frequency for 3-level system integrity checks (if performed in lieu of linearity checks) is the same as for the linearity checks. Use low-level, mid-level, and high-level NIST-traceable oxidized Hg standards for the system integrity checks.

5.1.2.3 If required, perform a single-level system integrity check weekly, *i.e.*, once every 7 operating days (see the third column in Table A-2).

5.1.2.4 The test frequency for the RATAs of the Hg CEMS shall be annual, *i.e.*, once every four QA operating quarters. For units that operate infrequently, extensions of RATA deadlines are allowed for non-QA operating quarters. Following a RATA, if there is a subsequent non-QA quarter, it extends the deadline for the next test by one calendar quarter. However, there is a limit to these extensions; the deadline may not be extended beyond the end of the eighth calendar quarter after the quarter of the last test. At that point, a RATA must either be performed within the eighth calendar quarter or in a 720 hour unit or stack operating hour grace period following that quarter. When a required annual RATA is done within a grace period, the deadline for the next RATA is three QA operating quarters after the quarter in which the grace period test is performed.

5.1.3 Grace Periods.

5.1.3.1 A 168 unit or stack operating hour grace period is available for quarterly linearity checks and 3-level system integrity checks of the Hg CEMS.

5.1.3.2 A 720 unit or stack operating hour grace period is available for RATAs of the Hg CEMS.

5.1.3.3 There is no grace period for weekly system integrity checks. The test must be completed once every 7 operating days.

5.1.4 *Data Validation.* The Hg CEMS is considered to be out-of-control, and data from the CEMS may not be reported as quality-assured, when any one of the acceptance criteria for the required QA tests in Table A-2 is not met. The CEMS is also considered to be out-of-control when a required QA test is not performed on schedule or

within an allotted grace period. To end an out-of-control period, the QA test that was either failed or not done on time must be performed and passed. Out-of-control periods are counted as hours of monitoring system downtime.

5.1.5 Conditional Data Validation. For certification, recertification, and diagnostic testing of Hg monitoring systems, and for the required QA tests when non-redundant backup Hg monitoring systems or temporary like-kind Hg analyzers are brought into service, the conditional data validation provisions in §§75.20(b)(3)(ii) through (b)(3)(ix) of this chapter may be used to avoid or minimize data loss. The allotted window of time to complete 7-day calibration error tests, linearity checks, cycle time tests, and RATAs shall be as specified in §75.20(b)(3)(iv) of this chapter. Required system integrity checks must be completed within 168 unit or stack operating hours after the probationary calibration error test.

Table A-2—On-Going QA Test Requirements for Hg CEMS

Perform this type of QA test . . .	At this frequency . . .	With these qualifications and exceptions . . .	Acceptance criteria . . .
Calibration error test	Daily	<ul style="list-style-type: none"> Use either a mid- or high-level gas 	$ R-A \leq 5.0\%$ of span value. or $ R-A \leq 1.0 \mu\text{g}/\text{scm}$.
		<ul style="list-style-type: none"> Use either elemental or oxidized Hg 	
		<ul style="list-style-type: none"> Calibrations are not required when the unit is not in operation 	
Single-level system integrity check	Weekly ¹	<ul style="list-style-type: none"> Required only for systems with converters 	$ R-A_{\text{avg}} \leq 10.0\%$ of the reference gas value. or $ R-A_{\text{avg}} \leq 0.8 \mu\text{g}/\text{scm}$.
		<ul style="list-style-type: none"> Use oxidized Hg—either mid- or high-level 	
		<ul style="list-style-type: none"> Not required if daily calibrations are done with a NIST-traceable source of oxidized Hg 	
Linearity check or 3-level system integrity check	Quarterly ³	<ul style="list-style-type: none"> Required in each “QA operating quarter”²—and no less than once every 4 calendar quarters 	$ R-A_{\text{avg}} \leq 10.0\%$ of the reference gas value, at each calibration gas level. or $ R-A_{\text{avg}} \leq 0.8 \mu\text{g}/\text{scm}$.
		<ul style="list-style-type: none"> 168 operating hour grace period available 	
		<ul style="list-style-type: none"> Use elemental Hg for linearity check 	
		<ul style="list-style-type: none"> Use oxidized Hg for system integrity check 	
		<ul style="list-style-type: none"> For system integrity check, CEMS must have a converter 	
RATA	Annual ⁴	<ul style="list-style-type: none"> Test deadline may be extended for “non-QA operating quarters”, up to a maximum of 8 quarters from the quarter of the previous test 	20.0% RA. or $ RM_{\text{avg}} - C_{\text{avg}} \leq 1.0 \mu\text{g}/\text{scm}$, if $RM_{\text{avg}} < 5.0 \mu\text{g}/\text{scm}$.
		<ul style="list-style-type: none"> 720 operating hour grace period available 	

¹“Weekly” means once every 7 operating days.

²A “QA operating quarter” is a calendar quarter with at least 168 unit or stack operating hours.

³“Quarterly” means once every QA operating quarter.

⁴“Annual” means once every four QA operating quarters.

5.1.6 *Adjustment of Span.* If you discover that a span adjustment is needed (e.g., if the Hg concentration readings exceed the span value for a significant percentage of the unit operating hours in a calendar quarter), you must implement the span adjustment within 90 days after the end of the calendar quarter in which you identify the need for the adjustment. A diagnostic linearity check is required within 168 unit or stack operating hours after changing the span value.

5.2 *Sorbent Trap Monitoring Systems.*

5.2.1 Each sorbent trap monitoring system shall be continuously operated and maintained in accordance with Performance Specification (PS) 12B in appendix B to part 60 of this chapter. The QA/QC criteria for routine operation of the system are summarized in Table 12B-1 of PS 12B. Each pair of sorbent traps may be used to sample the stack gas for up to 14 operating days.

5.2.2 For ongoing QA, periodic RATAs of the system are required.

5.2.2.1 The RATA frequency shall be annual, *i.e.*, once every four QA operating quarters. The provisions in section 5.1.2.4 of this appendix pertaining to RATA deadline extensions also apply to sorbent trap monitoring systems.

5.2.2.2 The same RATA performance criteria specified in Table A-2 for Hg CEMS also apply to the annual RATAs of the sorbent trap monitoring system.

5.2.2.3 A 720 unit or stack operating hour grace period is available for RATAs of the monitoring system.

5.2.3 Data validation for sorbent trap monitoring systems shall be done in accordance with Table 12B-1 in Performance Specification (PS) 12B in appendix B to part 60 of this chapter. All periods of invalid data shall be counted as hours of monitoring system downtime.

5.3 *Flow Rate, Diluent Gas, and Moisture Monitoring Systems.* The on-going QA test requirements for these monitoring systems are specified in part 75 of this chapter (see §§63.10010(b) through (d)).

5.4 *QA/QC Program Requirements.* The owner or operator shall develop and implement a quality assurance/quality control (QA/QC) program for the Hg CEMS and/or sorbent trap monitoring systems that are used to provide data under this subpart. At a minimum, the program shall include a written plan that describes in detail (or that refers to separate documents containing) complete, step-by-step procedures and operations for the most important QA/QC activities. Electronic storage of the QA/QC plan is permissible, provided that the information can be made available in hard copy to auditors and inspectors. The QA/QC program requirements for the diluent gas, flow rate, and moisture monitoring systems described in section 3.2.1.3 of this appendix are specified in section 1 of appendix B to part 75 of this chapter.

5.4.1 *General Requirements.*

5.4.1.1 *Preventive Maintenance.* Keep a written record of procedures needed to maintain the Hg CEMS and/or sorbent trap monitoring system(s) in proper operating condition and a schedule for those procedures. Include, at a minimum, all procedures specified by the manufacturers of the equipment and, if applicable, additional or alternate procedures developed for the equipment.

5.4.1.2 *Recordkeeping and Reporting.* Keep a written record describing procedures that will be used to implement the recordkeeping and reporting requirements of this appendix.

5.4.1.3 *Maintenance Records.* Keep a record of all testing, maintenance, or repair activities performed on any Hg CEMS or sorbent trap monitoring system in a location and format suitable for inspection. A maintenance log may be used for this purpose. The following records should be maintained: date, time, and description of any testing, adjustment, repair, replacement, or preventive maintenance action performed on any monitoring system and records

of any corrective actions associated with a monitor outage period. Additionally, any adjustment that may significantly affect a system's ability to accurately measure emissions data must be recorded (e.g., changing the dilution ratio of a CEMS), and a written explanation of the procedures used to make the adjustment(s) shall be kept.

5.4.2 *Specific Requirements for Hg CEMS.*

5.4.2.1 *Daily Calibrations, Linearity Checks and System Integrity Checks.* Keep a written record of the procedures used for daily calibrations of the Hg CEMS. If moisture and/or chlorine is added to the Hg calibration gas, document how the dilution effect of the moisture and/or chlorine addition on the calibration gas concentration is accounted for in an appropriate manner. Also keep records of the procedures used to perform linearity checks of the Hg CEMS and the procedures for system integrity checks of the Hg CEMS. Document how the test results are calculated and evaluated.

5.4.2.2 *Monitoring System Adjustments.* Document how each component of the Hg CEMS will be adjusted to provide correct responses to calibration gases after routine maintenance, repairs, or corrective actions.

5.4.2.3 *Relative Accuracy Test Audits.* Keep a written record of procedures used for RATAs of the Hg CEMS. Indicate the reference methods used and document how the test results are calculated and evaluated.

5.4.3 *Specific Requirements for Sorbent Trap Monitoring Systems.*

5.4.3.1 *Sorbent Trap Identification and Tracking.* Include procedures for inscribing or otherwise permanently marking a unique identification number on each sorbent trap, for chain of custody purposes. Keep records of the ID of the monitoring system in which each sorbent trap is used, and the dates and hours of each Hg collection period.

5.4.3.2 *Monitoring System Integrity and Data Quality.* Document the procedures used to perform the leak checks when a sorbent trap is placed in service and removed from service. Also Document the other QA procedures used to ensure system integrity and data quality, including, but not limited to, gas flow meter calibrations, verification of moisture removal, and ensuring air-tight pump operation. In addition, the QA plan must include the data acceptance and quality control criteria in Table 12B-1 in section 9.0 of Performance Specification (PS) 12B in Appendix B to part 60 of this chapter. All reference meters used to calibrate the gas flow meters (e.g., wet test meters) shall be periodically recalibrated. Annual, or more frequent, recalibration is recommended. If a NIST-traceable calibration device is used as a reference flow meter, the QA plan must include a protocol for ongoing maintenance and periodic recalibration to maintain the accuracy and NIST-traceability of the calibrator.

5.4.3.3 *Hg Analysis.* Explain the chain of custody employed in packing, transporting, and analyzing the sorbent traps. Keep records of all Hg analyses. The analyses shall be performed in accordance with the procedures described in section 11.0 of Performance Specification (PS) 12B in Appendix B to part 60 of this chapter.

5.4.3.4 *Data Collection Period.* State, and provide the rationale for, the minimum acceptable data collection period (e.g., one day, one week, etc.) for the size of sorbent trap selected for the monitoring. Address such factors as the Hg concentration in the stack gas, the capacity of the sorbent trap, and the minimum mass of Hg required for the analysis. Each pair of sorbent traps may be used to sample the stack gas for up to 14 operating days.

5.4.3.5 *Relative Accuracy Test Audit Procedures.* Keep records of the procedures and details peculiar to the sorbent trap monitoring systems that are to be followed for relative accuracy test audits, such as sampling and analysis methods.

6. DATA REDUCTION AND CALCULATIONS

6.1 Data Reduction.

6.1.1 Reduce the data from Hg CEMS to hourly averages, in accordance with §60.13(h)(2) of this chapter.

6.1.2 For sorbent trap monitoring systems, determine the Hg concentration for each data collection period and assign this concentration value to each operating hour in the data collection period.

6.1.3 For any operating hour in which valid data are not obtained, either for Hg concentration or for a parameter used in the emissions calculations (*i.e.*, flow rate, diluent gas concentration, or moisture, as applicable), do not calculate the Hg emission rate for that hour. For the purposes of this appendix, part 75 substitute data values are not considered to be valid data.

6.1.4 Operating hours in which valid data are not obtained for Hg concentration are considered to be hours of monitor downtime. The use of substitute data for Hg concentration is not required.

6.2 *Calculation of Hg Emission Rates.* Use the applicable calculation methods in paragraphs 6.2.1 and 6.2.2 of this section to convert Hg concentration values to the appropriate units of the emission standard.

6.2.1 *Heat Input-Based Hg Emission Rates.* Calculate hourly heat input-based Hg emission rates, in units of lb/TBtu, according to sections 6.2.1.1 through 6.2.1.4 of this appendix.

6.2.1.1 Select an appropriate emission rate equation from among Equations 19-1 through 19-9 in EPA Method 19 in appendix A-7 to part 60 of this chapter.

6.2.1.2 Calculate the Hg emission rate in lb/MMBtu, using the equation selected from Method 19. Multiply the Hg concentration value by 6.24×10^{-11} to convert it from $\mu\text{g}/\text{scm}$ to lb/scf. In cases where an appropriate F-factor is not listed in Table 19-2 of Method 19, you may use F-factors from Table 1 in section 3.3.5 of appendix F to part 75 of this chapter, or F-factors derived using the procedures in section 3.3.6 of appendix to part 75 of this chapter. Also, for startup and shutdown hours, you may calculate the Hg emission rate using the applicable diluent cap value specified in section 3.3.4.1 of appendix F to part 75 of this chapter, provided that the diluent gas monitor is not out-of-control and the hourly average O_2 concentration is above 14.0% O_2 (19.0% for an IGCC) or the hourly average CO_2 concentration is below 5.0% CO_2 (1.0% for an IGCC), as applicable.

6.2.1.3 Multiply the lb/MMBtu value obtained in section 6.2.1.2 of this appendix by 10^6 to convert it to lb/TBtu.

6.2.1.4 The heat input-based Hg emission rate limit in Table 2 to this subpart must be met on a 30 boiler operating day rolling average basis, except as otherwise provided in §63.10009(a)(2). Use Equation 19-19 in EPA Method 19 to calculate the Hg emission rate for each averaging period. The term E_{hj} in Equation 19-19 must be in the units of the applicable emission limit. Do not include non-operating hours with zero emissions in the average.

6.2.2 *Electrical Output-Based Hg Emission Rates.* Calculate electrical output-based Hg emission limits in units of lb/GWh, according to sections 6.2.2.1 through 6.2.2.3 of this appendix.

6.2.2.1 Calculate the Hg mass emissions for each operating hour in which valid data are obtained for all parameters, using Equation A-2 of this section (for wet-basis measurements of Hg concentration) or Equation A-3 of this section (for dry-basis measurements), as applicable:

$$M_h = K C_h Q_h \quad (\text{Equation A-2})$$

Where:

M_h = Hg mass emission rate for the hour (lb/h)

K = Units conversion constant, 6.24×10^{-11} lb-scm/ μg -scf,

C_h = Hourly average Hg concentration, wet basis ($\mu\text{g}/\text{scm}$)

Q_h = Stack gas volumetric flow rate for the hour (scfh).

(NOTE: Use unadjusted flow rate values; bias adjustment is not required)

$$M_h = K C_h Q_h (1 - B_{ws}) \quad (\text{Equation A-3})$$

Where:

M_h = Hg mass emission rate for the hour (lb/h)

K = Units conversion constant, 6.24×10^{-11} lb-scm/ μ g-scf.

C_h = Hourly average Hg concentration, dry basis (μ g/dscm).

Q_h = Stack gas volumetric flow rate for the hour (scfh)

(NOTE: Use unadjusted flow rate values; bias adjustment is not required).

B_{ws} = Moisture fraction of the stack gas, expressed as a decimal (equal to % H₂O/100)

6.2.2.2 Use Equation A-4 of this section to calculate the emission rate for each unit or stack operating hour in which valid data are obtained for all parameters.

$$E_{ho} = \frac{M_h}{(MW)_h} \times 10^3 \quad (\text{Equation A-4})$$

Where:

E_{ho} = Electrical output-based Hg emission rate (lb/GWh).

M_h = Hg mass emission rate for the hour, from Equation A-2 or A-3 of this section, as applicable (lb/h).

$(MW)_h$ = Gross electrical load for the hour, in megawatts (MW).

10^3 = Conversion factor from megawatts to gigawatts.

6.2.2.3 The applicable electrical output-based Hg emission rate limit in Table 1 or 2 to this subpart must be met on a 30-boiler operating day rolling average basis, except as otherwise provided in §63.10009(a)(2). Use Equation A-5 of this section to calculate the Hg emission rate for each averaging period.

$$\bar{E}_o = \frac{\sum_{h=1}^n E_{ho}}{n} \quad (\text{Equation A-5})$$

Where:

\bar{E}_o = Hg emission rate for the averaging period (lb/GWh).

E_{cho} = Electrical output-based hourly Hg emission rate for unit or stack operating hour "h" in the averaging period, from Equation A-4 of this section (lb/GWh).

n = Number of unit or stack operating hours in the averaging period in which valid data were obtained for all parameters.

(Note: Do *not* include non-operating hours with zero emission rates in the average).

7. RECORDKEEPING AND REPORTING

7.1 *Recordkeeping Provisions.* For the Hg CEMS and/or sorbent trap monitoring systems and any other necessary monitoring systems installed at each affected unit, the owner or operator must maintain a file of all measurements,

data, reports, and other information required by this appendix in a form suitable for inspection, for 5 years from the date of each record, in accordance with §63.10033. The file shall contain the information in paragraphs 7.1.1 through 7.1.10 of this section.

7.1.1 Monitoring Plan Records. For each affected unit or group of units monitored at a common stack, the owner or operator shall prepare and maintain a monitoring plan for the Hg CEMS and/or sorbent trap monitoring system(s) and any other monitoring system(s) (*i.e.*, flow rate, diluent gas, or moisture systems) needed for routine operation of a sorbent trap monitoring system or to convert Hg concentrations to units of the applicable emission standard. The monitoring plan shall contain essential information on the continuous monitoring systems and shall Document how the data derived from these systems ensure that all Hg emissions from the unit or stack are monitored and reported.

7.1.1.1 Updates. Whenever the owner or operator makes a replacement, modification, or change in a certified continuous monitoring system that is used to provide data under this subpart (including a change in the automated data acquisition and handling system or the flue gas handling system) which affects information reported in the monitoring plan (e.g., a change to a serial number for a component of a monitoring system), the owner or operator shall update the monitoring plan.

7.1.1.2 Contents of the Monitoring Plan. For Hg CEMS and sorbent trap monitoring systems, the monitoring plan shall contain the information in sections 7.1.1.2.1 and 7.1.1.2.2 of this appendix, as applicable. For stack gas flow rate, diluent gas, and moisture monitoring systems, the monitoring plan shall include the information required for those systems under §75.53 (g) of this chapter.

7.1.1.2.1 Electronic. The electronic monitoring plan records must include the following: unit or stack ID number(s); monitoring location(s); the Hg monitoring methodologies used; Hg monitoring system information, including, but not limited to: Unique system and component ID numbers; the make, model, and serial number of the monitoring equipment; the sample acquisition method; formulas used to calculate Hg emissions; Hg monitor span and range information The electronic monitoring plan shall be evaluated and submitted using the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool provided by the Clean Air Markets Division in the Office of Atmospheric Programs of the EPA.

7.1.1.2.2 Hard Copy. Keep records of the following: schematics and/or blueprints showing the location of the Hg monitoring system(s) and test ports; data flow diagrams; test protocols; monitor span and range calculations; miscellaneous technical justifications.

7.1.2 Operating Parameter Records. The owner or operator shall record the following information for each operating hour of each affected unit and also for each group of units utilizing a common stack, to the extent that these data are needed to convert Hg concentration data to the units of the emission standard. For non-operating hours, record only the items in paragraphs 7.1.2.1 and 7.1.2.2 of this section. If there is heat input to the unit(s), but no electrical load, record only the items in paragraphs 7.1.2.1, 7.1.2.2, and (if applicable) 7.1.2.4 of this section.

7.1.2.1 The date and hour;

7.1.2.2 The unit or stack operating time (rounded up to the nearest fraction of an hour (in equal increments that can range from one hundredth to one quarter of an hour, at the option of the owner or operator);

7.1.2.3 The hourly gross unit load (rounded to nearest MWe); and

7.1.2.4 If applicable, the F-factor used to calculate the heat input-based Hg emission rate.

7.1.3 Hg Emissions Records (Hg CEMS). For each affected unit or common stack using a Hg CEMS, the owner or operator shall record the following information for each unit or stack operating hour:

7.1.3.1 The date and hour;

7.1.3.2 Monitoring system and component identification codes, as provided in the monitoring plan, if the CEMS provides a quality-assured value of Hg concentration for the hour;

7.1.3.3 The hourly Hg concentration, if a quality-assured value is obtained for the hour ($\mu\text{g}/\text{scm}$, rounded to three significant figures);

7.1.3.4 A special code, indicating whether or not a quality-assured Hg concentration is obtained for the hour. This code may be entered manually when a temporary like-kind replacement Hg analyzer is used for reporting; and

7.1.3.5 Monitor data availability, as a percentage of unit or stack operating hours, calculated according to §75.32 of this chapter.

7.1.4 *Hg Emissions Records (Sorbent Trap Monitoring Systems)*. For each affected unit or common stack using a sorbent trap monitoring system, each owner or operator shall record the following information for the unit or stack operating hour in each data collection period:

7.1.4.1 The date and hour;

7.1.4.2 Monitoring system and component identification codes, as provided in the monitoring plan, if the sorbent trap system provides a quality-assured value of Hg concentration for the hour;

7.1.4.3 The hourly Hg concentration, if a quality-assured value is obtained for the hour ($\mu\text{g}/\text{scm}$, rounded to three significant figures). Note that when a quality-assured Hg concentration value is obtained for a particular data collection period, that single concentration value is applied to each operating hour of the data collection period.

7.1.4.4 A special code, indicating whether or not a quality-assured Hg concentration is obtained for the hour;

7.1.4.5 The average flow rate of stack gas through each sorbent trap (in appropriate units, e.g., liters/min, cc/min, dscm/min);

7.1.4.6 The gas flow meter reading (in dscm, rounded to the nearest hundredth), at the beginning and end of the collection period and at least once in each unit operating hour during the collection period;

7.1.4.7 The ratio of the stack gas flow rate to the sample flow rate, as described in section 12.2 of Performance Specification (PS) 12B in Appendix B to part 60 of this chapter; and

7.1.4.8 Monitor data availability, as a percentage of unit or stack operating hours, calculated according to §75.32 of this chapter.

7.1.5 *Stack Gas Volumetric Flow Rate Records*.

7.1.5.1 Hourly measurements of stack gas volumetric flow rate during unit operation are required for routine operation of sorbent trap monitoring systems, to maintain the required ratio of stack gas flow rate to sample flow rate (see section 8.2.2 of Performance Specification (PS) 12B in Appendix B to part 60 of this chapter). Hourly stack gas flow rate data are also needed in order to demonstrate compliance with electrical output-based Hg emissions limits, as provided in section 6.2.2 of this appendix.

7.1.5.2 For each affected unit or common stack, if hourly measurements of stack gas flow rate are needed for sorbent trap monitoring system operation or to convert Hg concentrations to the units of the emission standard, use a flow rate monitor that meets the requirements of part 75 of this chapter to record the required data. You must keep hourly flow rate records, as specified in §75.57(c)(2) of this chapter.

7.1.6 *Records of Stack Gas Moisture Content*.

7.1.6.1 Correction of hourly Hg concentration data for moisture is sometimes required when converting Hg concentrations to the units of the applicable Hg emissions limit. In particular, these corrections are required:

7.1.6.1.1 For sorbent trap monitoring systems;

7.1.6.1.2 For Hg CEMS that measure Hg concentration on a dry basis, when you must calculate electrical output-based Hg emission rates; and

7.1.6.1.3 When using certain equations from EPA Method 19 in appendix A-7 to part 60 of this chapter to calculate heat input-based Hg emission rates.

7.1.6.2 If hourly moisture corrections are required, either use a fuel-specific default moisture percentage from §75.11(b)(1) of this chapter or a certified moisture monitoring system that meets the requirements of part 75 of this chapter, to record the required data. If you use a moisture monitoring system, you must keep hourly records of the stack gas moisture content, as specified in §75.57(c)(3) of this chapter.

7.1.7 *Records of Diluent Gas (CO₂ or O₂) Concentration.*

7.1.7.1 When a heat input-based Hg mass emissions limit must be met, in units of lb/TBtu, hourly measurements of CO₂ or O₂ concentration are required to convert Hg concentrations to units of the standard.

7.1.7.2 If hourly measurements of diluent gas concentration are needed, use a certified CO₂ or O₂ monitor that meets the requirements of part 75 of this chapter to record the required data. You must keep hourly CO₂ or O₂ concentration records, as specified in §75.57(g) of this chapter.

7.1.8 *Hg Emission Rate Records.* For applicable Hg emission limits in units of lb/TBtu or lb/GWh, record the following information for each affected unit or common stack:

7.1.8.1 The date and hour;

7.1.8.2 The hourly Hg emissions rate (lb/TBtu or lb/GWh, as applicable, calculated according to section 6.2.1 or 6.2.2 of this appendix, rounded to three significant figures), if valid values of Hg concentration and all other required parameters (stack gas volumetric flow rate, diluent gas concentration, electrical load, and moisture data, as applicable) are obtained for the hour;

7.1.8.3 An identification code for the formula (either the selected equation from Method 19 in section 6.2.1 of this appendix or Equation A-4 in section 6.2.2 of this appendix) used to derive the hourly Hg emission rate from Hg concentration, flow rate, electrical load, diluent gas concentration, and moisture data (as applicable); and

7.1.8.4 A code indicating that the Hg emission rate was not calculated for the hour, if valid data for Hg concentration and/or any of the other necessary parameters are not obtained for the hour. For the purposes of this appendix, the substitute data values required under part 75 of this chapter for diluent gas concentration, stack gas flow rate and moisture content are not considered to be valid data.

7.1.9 *Certification and Quality Assurance Test Records.* For any Hg CEMS and sorbent trap monitoring systems used to provide data under this subpart, record the following certification and quality-assurance information:

7.1.9.1 The reference values, monitor responses, and calculated calibration error (CE) values, and a flag to indicate whether the test was done using elemental or oxidized Hg, for all required 7-day calibration error tests and daily calibration error tests of the Hg CEMS;

7.1.9.2 The reference values, monitor responses, and calculated linearity error (LE) or system integrity error (SIE) values for all linearity checks of the Hg CEMS, and for all single-level and 3-level system integrity checks of the Hg CEMS;

7.1.9.3 The CEMS and reference method readings for each test run and the calculated relative accuracy results for all RATAs of the Hg CEMS and/or sorbent trap monitoring systems;

7.1.9.4 The stable stack gas and calibration gas readings and the calculated results for the upscale and downscale stages of all required cycle time tests of the Hg CEMS or, for a batch sampling Hg CEMS, the interval between measured Hg concentration readings;

7.1.9.5 Supporting information for all required RATAs of the Hg monitoring systems, including records of the test dates, the raw reference method and monitoring system data, the results of sample analyses to substantiate the reported test results, and records of sampling equipment calibrations;

7.1.9.6 For sorbent trap monitoring systems, also keep records of the results of all analyses of the sorbent traps used for routine daily operation of the system, and information documenting the results of all leak checks and the other applicable quality control procedures described in Table 12B-1 of Performance Specification (PS) 12B in appendix B to part 60 of this chapter.

7.1.9.7 For stack gas flow rate, diluent gas, and (if applicable) moisture monitoring systems, you must keep records of all certification, recertification, diagnostic, and on-going quality-assurance tests of these systems, as specified in §75.59 of this chapter.

7.2 *Reporting Requirements.*

7.2.1 *General Reporting Provisions.* The owner or operator shall comply with the following requirements for reporting Hg emissions from each affected unit (or group of units monitored at a common stack) under this subpart:

7.2.1.1 Notifications, in accordance with paragraph 7.2.2 of this section;

7.2.1.2 Monitoring plan reporting, in accordance with paragraph 7.2.3 of this section;

7.2.1.3 Certification, recertification, and QA test submittals, in accordance with paragraph 7.2.4 of this section; and

7.2.1.4 Electronic quarterly report submittals, in accordance with paragraph 7.2.5 of this section.

7.2.2 *Notifications.* The owner or operator shall provide notifications for each affected unit (or group of units monitored at a common stack) under this subpart in accordance with §63.10030.

7.2.3 *Monitoring Plan Reporting.* For each affected unit (or group of units monitored at a common stack) under this subpart using Hg CEMS or sorbent trap monitoring system to measure Hg emissions, the owner or operator shall make electronic and hard copy monitoring plan submittals as follows:

7.2.3.1 Submit the electronic and hard copy information in section 7.1.1.2 of this appendix pertaining to the Hg monitoring systems at least 21 days prior to the applicable date in §63.9984. Also submit the monitoring plan information in §75.53.(g) pertaining to the flow rate, diluent gas, and moisture monitoring systems within that same time frame, if the required records are not already in place.

7.2.3.2 Whenever an update of the monitoring plan is required, as provided in paragraph 7.1.1.1 of this section. An electronic monitoring plan information update must be submitted either prior to or concurrent with the quarterly report for the calendar quarter in which the update is required.

7.2.3.3 All electronic monitoring plan submittals and updates shall be made to the Administrator using the ECMP Client Tool. Hard copy portions of the monitoring plan shall be kept on record according to section 7.1 of this appendix.

7.2.4 *Certification, Recertification, and Quality-Assurance Test Reporting.* Except for daily QA tests of the required monitoring systems (*i.e.*, calibration error tests and flow monitor interference checks), the results of all required certification, recertification, and quality-assurance tests described in paragraphs 7.1.9.1 through 7.1.9.7 of this section (except for test results previously submitted, *e.g.*, under the ARP) shall be submitted electronically, using the ECMP Client Tool, either prior to or concurrent with the relevant quarterly electronic emissions report.

7.2.5 *Quarterly Reports.*

7.2.5.1 Beginning with the report for the calendar quarter in which the initial compliance demonstration is completed or the calendar quarter containing the applicable date in §63.9984, the owner or operator of any affected unit shall

use the ECMPS Client Tool to submit electronic quarterly reports to the Administrator, in an XML format specified by the Administrator, for each affected unit (or group of units monitored at a common stack) under this subpart.

7.2.5.2 The electronic reports must be submitted within 30 days following the end of each calendar quarter, except for units that have been placed in long-term cold storage.

7.2.5.3 Each electronic quarterly report shall include the following information:

7.2.5.3.1 The date of report generation;

7.2.5.3.2 Facility identification information;

7.2.5.3.3 The information in paragraphs 7.1.2 through 7.1.8 of this section, as applicable to the Hg emission measurement methodology (or methodologies) used and the units of the Hg emission standard(s); and

7.2.5.3.4 The results of all daily calibration error tests of the Hg CEMS, as described in paragraph 7.1.9.1 of this section and (if applicable) the results of all daily flow monitor interference checks.

7.2.5.4 *Compliance Certification.* Based on reasonable inquiry of those persons with primary responsibility for ensuring that all Hg emissions from the affected unit(s) under this subpart have been correctly and fully monitored, the owner or operator shall submit a compliance certification in support of each electronic quarterly emissions monitoring report. The compliance certification shall include a statement by a responsible official with that official's name, title, and signature, certifying that, to the best of his or her knowledge, the report is true, accurate, and complete.

[77 FR 9464, Feb. 16, 2012, as amended at 77 FR 23408, Apr. 19, 2012; 78 FR 24093, Apr. 24, 2013]

Appendix B to Subpart UUUUU of Part 63—HCl and HF Monitoring Provisions

1. APPLICABILITY

These monitoring provisions apply to the measurement of HCl and/or HF emissions from electric utility steam generating units, using CEMS. The CEMS must be capable of measuring HCl and/or HF in the appropriate units of the applicable emissions standard (e.g., lb/MMBtu, lb/MWh, or lb/GWh).

2. MONITORING OF HCL AND/OR HF EMISSIONS

2.1 *Monitoring System Installation Requirements.* Install HCl and/or HF CEMS and any additional monitoring systems needed to convert pollutant concentrations to units of the applicable emissions limit in accordance with Performance Specification 15 for extractive Fourier Transform Infrared Spectroscopy (FTIR) continuous emissions monitoring systems in appendix B to part 60 of this chapter and §63.10010(a).

2.2 *Primary and Backup Monitoring Systems.* The provisions pertaining to primary and redundant backup monitoring systems in section 2.2 of appendix A to this subpart apply to HCl and HF CEMS and any additional monitoring systems needed to convert pollutant concentrations to units of the applicable emissions limit.

2.3 *FTIR Monitoring System Equipment, Supplies, Definitions, and General Operation.* The provisions of Performance Specification 15 Sections 2.0, 3.0, 4.0, 5.0, 6.0, and 10.0 apply.

3. INITIAL CERTIFICATION PROCEDURES

The initial certification procedures for the HCl or HF CEMS used to provide data under this subpart are as follows:

3.1 The HCl and/or HF CEMS must be certified according to Performance Specification 15 using the procedures for gas auditing and comparison to a reference method (RM) as specified in sections 3.1.1 and 3.1.2 below. (PLEASE NOTE: EPA plans to publish a technology neutral performance specification and appropriate on-going quality-

assurance requirements for HCl CEMS in the near future along with amendments to this appendix to accommodate their use.)

3.1.1 You must conduct a gas audit of the HCl and/or HF CEMS as described in section 9.1 of Performance Specification 15, with the exceptions listed in sections 3.1.2.1 and 3.1.2.2 below.

3.1.1.1 The audit sample gas does not have to be obtained from the Administrator; however, it must be (1) from a secondary source of certified gases (*i.e.*, independent of any calibration gas used for the daily calibration assessments) and (2) directly traceable to National Institute of Standards and Technology (NIST) or VSL Dutch Metrology Institute (VSL) reference materials through an unbroken chain of comparisons. If audit gas traceable to NIST or VSL reference materials is not available, you may use a gas with a concentration certified to a specified uncertainty by the gas manufacturer.

3.1.1.2 Analyze the results of the gas audit using the calculations in section 12.1 of Performance Specification 15. The calculated correction factor (CF) from Eq. 6 of Performance Specification 15 must be between 0.85 and 1.15. You do not have to test the bias for statistical significance.

3.1.2 You must perform a relative accuracy test audit or RATA according to section 11.1.1.4 of Performance Specification 15 and the requirements below. Perform the RATA of the HCl or HF CEMS at normal load. Acceptable HCl/HF reference methods (RM) are Methods 26 and 26A in appendix A-8 to part 60 of this chapter, Method 320 in Appendix A to this part, or ASTM D6348-03 (Reapproved 2010) "Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy" (incorporated by reference, see §63.14), each applied based on the criteria set forth in Table 5 of this subpart.

3.1.2.1 When ASTM D6348-03 is used as the RM, the following conditions must be met:

3.1.2.1.1 The test plan preparation and implementation in the Annexes to ASTM D6348-03, Sections A1 through A8 are mandatory;

3.1.2.1.2 In ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (see Equation A5.5);

3.1.2.1.3 For the ASTM D6348-03 test data to be acceptable for a target analyte, %R must be 70% ≤ R ≤ 130%; and

3.1.2.1.4 The %R value for each compound must be reported in the test report and all field measurements corrected with the calculated %R value for that compound using the following equation:

$$\text{Reported Result} = \frac{(\text{Measured Concentration in Stack})}{\%R} \times 100 \quad (\text{Eq. B-1})$$

3.1.2.2 The relative accuracy (RA) of the HCl or HF CEMS must be no greater than 20 percent of the mean value of the RM test data in units of ppm on the same moisture basis. Alternatively, if the mean RM value is less than 1.0 ppm, the RA results are acceptable if the absolute value of the difference between the mean RM and CEMS values does not exceed 0.20 ppm.

3.2 Any additional stack gas flow rate, diluent gas, and moisture monitoring system(s) needed to express pollutant concentrations in units of the applicable emissions limit must be certified according to part 75 of this chapter.

4. RECERTIFICATION PROCEDURES

Whenever the owner or operator makes a replacement, modification, or change to a certified CEMS that may significantly affect the ability of the system to accurately measure or record pollutant or diluent gas concentrations, stack gas flow rates, or stack gas moisture content, the owner or operator shall recertify the monitoring system. Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit operation that may significantly change the concentration or flow profile, the owner or operator shall recertify the monitoring system. The same tests performed for the initial certification of the monitoring system shall be repeated for recertification, unless otherwise specified by the Administrator. Examples of changes that

require recertification include: Replacement of a gas analyzer; complete monitoring system replacement, and changing the location or orientation of the sampling probe.

5. ON-GOING QUALITY ASSURANCE REQUIREMENTS

5.1 For on-going QA test requirements for HCl and HF CEMS, implement the quality assurance/quality control procedures of Performance Specification 15 of appendix B to part 60 of this chapter as set forth in sections 5.1.1 through 5.1.3 and 5.3.2 of this appendix.

5.1.1 On a daily basis, you must assess the calibration error of the HCl or HF CEMS using either a calibration transfer standard as specified in Performance Specification 15 Section 10.1 which references Section 4.5 of the FTIR Protocol or a HCl and/or HF calibration gas at a concentration no greater than two times the level corresponding to the applicable emission limit. A calibration transfer standard is a substitute calibration compound chosen to ensure that the FTIR is performing well at the wavelength regions used for analysis of the target analytes. The measured concentration of the calibration transfer standard or HCl and/or HF calibration gas results must agree within ± 5 percent of the reference gas value after correction for differences in pressure.

5.1.2 On a quarterly basis, you must conduct a gas audit of the HCl and/or HF CEMS as described in section 3.1.1 of this appendix. For the purposes of this appendix, "quarterly" means once every "QA operating quarter" (as defined in section 3.1.20 of appendix A to this subpart). You have the option to use HCl gas in lieu of HF gas for conducting this audit on an HF CEMS. To the extent practicable, perform consecutive quarterly gas audits at least 30 days apart. The initial quarterly audit is due in the first QA operating quarter following the calendar quarter in which certification testing of the CEMS is successfully completed. Up to three consecutive exemptions from the quarterly audit requirement are allowed for "non-QA operating quarters" (i.e., calendar quarters in which there are less than 168 unit or stack operating hours). However, no more than four consecutive calendar quarters may elapse without performing a gas audit, except as otherwise provided in section 5.3.3.2.1 of this appendix.

5.1.3 You must perform an annual relative accuracy test audit or RATA of the HCl or HF CEMS as described in section 3.1.2 of this appendix. Perform the RATA at normal load. For the purposes of this appendix, "annual" means once every four "QA operating quarters" (as defined in section 3.1.20 of appendix A to this subpart). The first annual RATA is due within four QA operating quarters following the calendar quarter in which the initial certification testing of the HCl or HF CEMS is successfully completed. The provisions in section 5.1.2.4 of appendix A to this subpart pertaining to RATA deadline extensions also apply.

5.2 Stack gas flow rate, diluent gas, and moisture monitoring systems must meet the applicable on-going QA test requirements of part 75 of this chapter.

5.3 Data Validation.

5.3.1 *Out-of-Control Periods.* A HCl or HF CEMS that is used to provide data under this appendix is considered to be out-of-control, and data from the CEMS may not be reported as quality-assured, when any acceptance criteria for a required QA test is not met. The HCl or HF CEMS is also considered to be out-of-control when a required QA test is not performed on schedule or within an allotted grace period. To end an out-of-control period, the QA test that was either failed or not done on time must be performed and passed. Out-of-control periods are counted as hours of monitoring system downtime.

5.3.2 *Grace Periods.* For the purposes of this appendix, a "grace period" is defined as a specified number of unit or stack operating hours after the deadline for a required quality-assurance test of a continuous monitor has passed, in which the test may be performed and passed without loss of data.

5.3.2.1 For the flow rate, diluent gas, and moisture monitoring systems described in section 5.2 of this appendix, a 168 unit or stack operating hour grace period is available for quarterly linearity checks, and a 720 unit or stack operating hour grace period is available for RATAs, as provided, respectively, in sections 2.2.4 and 2.3.3 of appendix B to part 75 of this chapter.

5.3.2.2 For the purposes of this appendix, if the deadline for a required gas audit or RATA of a HCl or HF CEMS cannot be met due to circumstances beyond the control of the owner or operator:

5.3.2.2.1 A 168 unit or stack operating hour grace period is available in which to perform the gas audit; or

5.3.2.2.2 A 720 unit or stack operating hour grace period is available in which to perform the RATA.

5.3.2.3 If a required QA test is performed during a grace period, the deadline for the next test shall be determined as follows:

5.3.2.3.1 For a gas audit or RATA of the monitoring systems described in section 5.1 of this appendix, determine the deadline for the next gas audit or RATA (as applicable) in accordance with section 2.2.4(b) or 2.3.3(d) of appendix B to part 75 of this chapter; treat a gas audit in the same manner as a linearity check.

5.3.2.3.2 For the gas audit of a HCl or HF CEMS, the grace period test only satisfies the audit requirement for the calendar quarter in which the test was originally due. If the calendar quarter in which the grace period audit is performed is a QA operating quarter, an additional gas audit is required for that quarter.

5.3.2.3.3 For the RATA of a HCl or HF CEMS, the next RATA is due within three QA operating quarters after the calendar quarter in which the grace period test is performed.

5.3.3 *Conditional Data Validation*> For recertification and diagnostic testing of the monitoring systems that are used to provide data under this appendix, and for the required QA tests when non-redundant backup monitoring systems or temporary like-kind replacement analyzers are brought into service, the conditional data validation provisions in §§75.20(b)(3)(ii) through (b)(3)(ix) of this chapter may be used to avoid or minimize data loss. The allotted window of time to complete calibration tests and RATAs shall be as specified in §75.20(b)(3)(iv) of this chapter; the allotted window of time to complete a gas audit shall be the same as for a linearity check (*i.e.*, 168 unit or stack operating hours).

6. MISSING DATA REQUIREMENTS

For the purposes of this appendix, the owner or operator of an affected unit shall not substitute for missing data from HCl or HF CEMS. Any process operating hour for which quality-assured HCl or HF concentration data are not obtained is counted as an hour of monitoring system downtime.

7. BIAS ADJUSTMENT

Bias adjustment of hourly emissions data from a HCl or HF CEMS is not required.

8. QA/QC PROGRAM REQUIREMENTS

The owner or operator shall develop and implement a quality assurance/quality control (QA/QC) program for the HCl and/or HF CEMS that are used to provide data under this subpart. At a minimum, the program shall include a written plan that describes in detail (or that refers to separate documents containing) complete, step-by-step procedures and operations for the most important QA/QC activities. Electronic storage of the QA/QC plan is permissible, provided that the information can be made available in hard copy to auditors and inspectors. The QA/QC program requirements for the other monitoring systems described in section 5.2 of this appendix are specified in section 1 of appendix B to part 75 of this chapter.

8.1 *General Requirements for HCl and HF CEMS.*

8.1.1 *Preventive Maintenance.* Keep a written record of procedures needed to maintain the HCl and/or HF CEMS in proper operating condition and a schedule for those procedures. This shall, at a minimum, include procedures specified by the manufacturers of the equipment and, if applicable, additional or alternate procedures developed for the equipment.

8.1.2 *Recordkeeping and Reporting.* Keep a written record describing procedures that will be used to implement the recordkeeping and reporting requirements of this appendix.

8.1.3 *Maintenance Records.* Keep a record of all testing, maintenance, or repair activities performed on any HCl or HF CEMS in a location and format suitable for inspection. A maintenance log may be used for this purpose. The following records should be maintained: Date, time, and description of any testing, adjustment, repair, replacement, or preventive maintenance action performed on any monitoring system and records of any corrective actions associated with a monitor outage period. Additionally, any adjustment that may significantly affect a system's ability to accurately measure emissions data must be recorded and a written explanation of the procedures used to make the adjustment(s) shall be kept.

8.2 *Specific Requirements for HCl and HF CEMS.* The following requirements are specific to HCl and HF CEMS:

8.2.1 Keep a written record of the procedures used for each type of QA test required for each HCl and HF CEMS. Explain how the results of each type of QA test are calculated and evaluated.

8.2.2 Explain how each component of the HCl and/or HF CEMS will be adjusted to provide correct responses to calibration gases after routine maintenance, repairs, or corrective actions.

9. DATA REDUCTION AND CALCULATIONS

9.1 Design and operate the HCl and/or HF CEMS to complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

9.2 Reduce the HCl and/or HF concentration data to hourly averages in accordance with §60.13(h)(2) of this chapter.

9.3 Convert each hourly average HCl or HF concentration to an HCl or HF emission rate expressed in units of the applicable emissions limit.

9.3.1 For heat input-based emission rates, select an appropriate emission rate equation from among Equations 19-1 through 19-9 in EPA Method 19 in appendix A-7 to part 60 of this chapter, to calculate the HCl or HF emission rate in lb/MMBtu. Multiply the HCl concentration value (ppm) by 9.43×10^{-8} to convert it to lb/scf, for use in the applicable Method 19 equation. For HF, the conversion constant from ppm to lb/scf is 5.18×10^{-8} .

9.3.2 For electrical output-based emission rates, first calculate the HCl or HF mass emission rate (lb/h), using an equation that has the general form of Equation A-2 or A-3 in appendix A to this subpart (as applicable), replacing the value of K with 9.43×10^{-8} lb/scf-ppm (for HCl) or 5.18×10^{-8} (for HF) and defining C_h as the hourly average HCl or HF concentration in ppm. Then, use Equation A-4 in appendix A to this subpart to calculate the HCl or HF emission rate in lb/GWh. If the applicable HCl or HF limit is expressed in lb/MWh, divide the result from Equation A-4 by 10^3 .

9.4 Use Equation A-5 in appendix A of this subpart to calculate the required 30 operating day rolling average HCl or HF emission rates. Round off each 30 operating day average to two significant figures. The term E_{ho} in Equation A-5 must be in the units of the applicable emissions limit.

10. RECORDKEEPING REQUIREMENTS

10.1 For each HCl or HF CEMS installed at an affected source, and for any other monitoring system(s) needed to convert pollutant concentrations to units of the applicable emissions limit, the owner or operator must maintain a file of all measurements, data, reports, and other information required by this appendix in a form suitable for inspection, for 5 years from the date of each record, in accordance with §63.10033. The file shall contain the information in paragraphs 10.1.1 through 10.1.8 of this section.

10.1.1 *Monitoring Plan Records.* For each affected unit or group of units monitored at a common stack, the owner or operator shall prepare and maintain a monitoring plan for the HCl and/or HF CEMS and any other monitoring system(s) (i.e., flow rate, diluent gas, or moisture systems) needed to convert pollutant concentrations to units of the applicable emission standard. The monitoring plan shall contain essential information on the continuous monitoring systems and shall explain how the data derived from these systems ensure that all HCl or HF emissions from the unit or stack are monitored and reported.

10.1.1.1 *Updates.* Whenever the owner or operator makes a replacement, modification, or change in a certified continuous HCl or HF monitoring system that is used to provide data under this subpart (including a change in the automated data acquisition and handling system or the flue gas handling system) which affects information reported in the monitoring plan (e.g., a change to a serial number for a component of a monitoring system), the owner or operator shall update the monitoring plan.

10.1.1.2 *Contents of the Monitoring Plan.* For HCl and/or HF CEMS, the monitoring plan shall contain the applicable electronic and hard copy information in sections 10.1.1.2.1 and 10.1.1.2.2 of this appendix. For stack gas flow rate, diluent gas, and moisture monitoring systems, the monitoring plan shall include the electronic and hard copy information required for those systems under §75.53 (g) of this chapter. The electronic monitoring plan shall be evaluated using the ECMPS Client Tool.

10.1.1.2.1 *Electronic.* Record the unit or stack ID number(s); monitoring location(s); the HCl or HF monitoring methodology used (i.e., CEMS); HCl or HF monitoring system information, including, but not limited to: unique system and component ID numbers; the make, model, and serial number of the monitoring equipment; the sample acquisition method; formulas used to calculate emissions; monitor span and range information (if applicable).

10.1.1.2.2 *Hard Copy.* Keep records of the following: schematics and/or blueprints showing the location of the monitoring system(s) and test ports; data flow diagrams; test protocols; monitor span and range calculations (if applicable); miscellaneous technical justifications.

10.1.2 *Operating Parameter Records.* For the purposes of this appendix, the owner or operator shall record the following information for each operating hour of each affected unit or group of units utilizing a common stack, to the extent that these data are needed to convert pollutant concentration data to the units of the emission standard. For non-operating hours, record only the items in paragraphs 10.1.2.1 and 10.1.2.2 of this section. If there is heat input to the unit(s), but no electrical load, record only the items in paragraphs 10.1.2.1, 10.1.2.2, and (if applicable) 10.1.2.4 of this section.

10.1.2.1 The date and hour;

10.1.2.2 The unit or stack operating time (rounded up to the nearest fraction of an hour (in equal increments that can range from one hundredth to one quarter of an hour, at the option of the owner or operator);

10.1.2.3 The hourly gross unit load (rounded to nearest MWge); and

10.1.2.4 If applicable, the F-factor used to calculate the heat input-based pollutant emission rate.

10.1.3 *HCl and/or HF Emissions Records.* For HCl and/or HF CEMS, the owner or operator must record the following information for each unit or stack operating hour:

10.1.3.1 The date and hour;

10.1.3.2 Monitoring system and component identification codes, as provided in the electronic monitoring plan, for each hour in which the CEMS provides a quality-assured value of HCl or HF concentration (as applicable);

10.1.3.3 The pollutant concentration, for each hour in which a quality-assured value is obtained. For HCl and HF, record the data in parts per million (ppm), rounded to three significant figures.

10.1.3.4 A special code, indicating whether or not a quality-assured HCl or HF concentration value is obtained for the hour. This code may be entered manually when a temporary like-kind replacement HCl or HF analyzer is used for reporting; and

10.1.3.5 Monitor data availability, as a percentage of unit or stack operating hours, calculated according to §75.32 of this chapter.

10.1.4 *Stack Gas Volumetric Flow Rate Records.*

10.1.4.1 Hourly measurements of stack gas volumetric flow rate during unit operation are required to demonstrate compliance with electrical output-based HCl or HF emissions limits (*i.e.*, lb/MWh or lb/GWh).

10.1.4.2 Use a flow rate monitor that meets the requirements of part 75 of this chapter to record the required data. You must keep hourly flow rate records, as specified in §75.57(c)(2) of this chapter.

10.1.5 *Records of Stack Gas Moisture Content.*

10.1.5.1 Correction of hourly pollutant concentration data for moisture is sometimes required when converting concentrations to the units of the applicable Hg emissions limit. In particular, these corrections are required:

10.1.5.1.1 To calculate electrical output-based pollutant emission rates, when using a CEMS that measures pollutant concentrations on a dry basis; and

10.1.5.1.2 To calculate heat input-based pollutant emission rates, when using certain equations from EPA Method 19 in appendix A-7 to part 60 of this chapter.

10.1.5.2 If hourly moisture corrections are required, either use a fuel-specific default moisture percentage for coal-fired units from §75.11(b)(1) of this chapter, an Administrator approved default moisture value for non-coal-fired units (as per paragraph 63.10010(d) of this subpart), or a certified moisture monitoring system that meets the requirements of part 75 of this chapter, to record the required data. If you elect to use a moisture monitoring system, you must keep hourly records of the stack gas moisture content, as specified in §75.57(c)(3) of this chapter.

10.1.6 *Records of Diluent Gas (CO₂ or O₂) Concentration.*

10.1.6.1 To assess compliance with a heat input-based HCl or HF emission rate limit in units of lb/MMBtu, hourly measurements of CO₂ or O₂ concentration are required to convert pollutant concentrations to units of the standard.

10.1.6.2 If hourly measurements of diluent gas concentration are needed, you must use a certified CO₂ or O₂ monitor that meets the requirements of part 75 of this chapter to record the required data. For all diluent gas monitors, you must keep hourly CO₂ or O₂ concentration records, as specified in §75.57(g) of this chapter.

10.1.7 *HCl and HF Emission Rate Records.* For applicable HCl and HF emission limits in units of lb/MMBtu, lb/MWh, or lb/GWh, record the following information for each affected unit or common stack:

10.1.7.1 The date and hour;

10.1.7.2 The hourly HCl and/or HF emissions rate (lb/MMBtu, lb/MWh, or lb/GWh, as applicable, rounded to three significant figures), for each hour in which valid values of HCl or HF concentration and all other required parameters (stack gas volumetric flow rate, diluent gas concentration, electrical load, and moisture data, as applicable) are obtained for the hour;

10.1.7.3 An identification code for the formula used to derive the hourly HCl or HF emission rate from HCl or HF concentration, flow rate, electrical load, diluent gas concentration, and moisture data (as applicable); and

10.1.7.4 A code indicating that the HCl or HF emission rate was not calculated for the hour, if valid data for HCl or HF concentration and/or any of the other necessary parameters are not obtained for the hour. For the purposes of this appendix, the substitute data values required under part 75 of this chapter for diluent gas concentration, stack gas flow rate and moisture content are not considered to be valid data.

10.1.8 *Certification and Quality Assurance Test Records.* For the HCl and/or HF CEMS used to provide data under this subpart at each affected unit (or group of units monitored at a common stack), record the following information for all required certification, recertification, diagnostic, and quality-assurance tests:

10.1.8.1 *HCl and HF CEMS.*

10.1.8.1.1 For all required daily calibrations (including calibration transfer standard tests) of the HCl or HF CEMS, record the test dates and times, reference values, monitor responses, and calculated calibration error values;

10.1.8.1.2 For gas audits of HCl or HF CEMS, record the date and time of each spiked and unspiked sample, the audit gas reference values and uncertainties. Keep records of all calculations and data analyses required under sections 9.1 and 12.1 of Performance Specification 15, and the results of those calculations and analyses.

10.1.8.1.3 For each RATA of a HCl or HF CEMS, record the date and time of each test run, the reference method(s) used, and the reference method and HCl or HF CEMS values. Keep records of the data analyses and calculations used to determine the relative accuracy.

10.1.8.2 *Additional Monitoring Systems.* For the stack gas flow rate, diluent gas, and moisture monitoring systems described in section 3.2 of this appendix, you must keep records of all certification, recertification, diagnostic, and on-going quality-assurance tests of these systems, as specified in §75.59(a) of this chapter.

11. REPORTING REQUIREMENTS

11.1 *General Reporting Provisions.* The owner or operator shall comply with the following requirements for reporting HCl and/or HF emissions from each affected unit (or group of units monitored at a common stack):

11.1.1 Notifications, in accordance with paragraph 11.2 of this section;

11.1.2 Monitoring plan reporting, in accordance with paragraph 11.3 of this section;

11.1.3 Certification, recertification, and QA test submittals, in accordance with paragraph 11.4 of this section; and

11.1.4 Electronic quarterly report submittals, in accordance with paragraph 11.5 of this section.

11.2 *Notifications.* The owner or operator shall provide notifications for each affected unit (or group of units monitored at a common stack) in accordance with §63.10030.

11.3 *Monitoring Plan Reporting.* For each affected unit (or group of units monitored at a common stack) using HCl and/or HF CEMS, the owner or operator shall make electronic and hard copy monitoring plan submittals as follows:

11.3.1 Submit the electronic and hard copy information in section 10.1.1.2 of this appendix pertaining to the HCl and/or HF monitoring systems at least 21 days prior to the applicable date in §63.9984. Also, if applicable, submit monitoring plan information pertaining to any required flow rate, diluent gas, and/or moisture monitoring systems within that same time frame, if the required records are not already in place.

11.3.2 Update the monitoring plan when required, as provided in paragraph 10.1.1.1 of this appendix. An electronic monitoring plan information update must be submitted either prior to or concurrent with the quarterly report for the calendar quarter in which the update is required.

11.3.3 All electronic monitoring plan submittals and updates shall be made to the Administrator using the ECMPS Client Tool. Hard copy portions of the monitoring plan shall be kept on record according to section 10.1 of this appendix.

11.4 *Certification, Recertification, and Quality-Assurance Test Reporting Requirements.* Except for daily QA tests (i.e., calibrations and flow monitor interference checks), which are included in each electronic quarterly emissions report, use the ECMPS Client Tool to submit the results of all required certification, recertification, quality-assurance, and diagnostic tests of the monitoring systems required under this appendix electronically, either prior to or concurrent with the relevant quarterly electronic emissions report.

11.4.1 For daily calibrations (including calibration transfer standard tests), report the information in §75.59(a)(1) of this chapter, excluding paragraphs (a)(1)(ix) through (a)(1)(xi).

11.4.2 For each quarterly gas audit of a HCl or HF CEMS, report:

11.4.2.1 Facility ID information;

11.4.2.2 Monitoring system ID number;

11.4.2.3 Type of test (e.g., quarterly gas audit);

11.4.2.4 Reason for test;

11.4.2.5 Certified audit (spike) gas concentration value (ppm);

11.4.2.6 Measured value of audit (spike) gas, including date and time of injection;

11.4.2.7 Calculated dilution ratio for audit (spike) gas;

11.4.2.8 Date and time of each spiked flue gas sample;

11.4.2.9 Date and time of each unspiked flue gas sample;

11.4.2.10 The measured values for each spiked gas and unspiked flue gas sample (ppm);

11.4.2.11 The mean values of the spiked and unspiked sample concentrations and the expected value of the spiked concentration as specified in section 12.1 of Performance Specification 15 (ppm);

11.4.2.12 Bias at the spike level as calculated using equation 3 in section 12.1 of Performance Specification 15; and

11.4.2.13 The correction factor (CF), calculated using equation 6 in section 12.1 of Performance Specification 15.

11.4.3 For each RATA of a HCl or HF CEMS, report:

11.4.3.1 Facility ID information;

11.4.3.2 Monitoring system ID number;

11.4.3.3 Type of test (*i.e.*, initial or annual RATA);

11.4.3.4 Reason for test;

11.4.3.5 The reference method used;

11.4.3.6 Starting and ending date and time for each test run;

11.4.3.7 Units of measure;

11.4.3.8 The measured reference method and CEMS values for each test run, on a consistent moisture basis, in appropriate units of measure;

11.4.3.9 Flags to indicate which test runs were used in the calculations;

11.4.3.10 Arithmetic mean of the CEMS values, of the reference method values, and of their differences;

11.4.3.11 Standard deviation, as specified in Equation 2-4 of Performance Specification 2 in appendix B to part 60 of this chapter;

11.4.3.12 Confidence coefficient, as specified in Equation 2-5 of Performance Specification 2 in appendix B to part 60 of this chapter; and

11.4.3.13 Relative accuracy calculated using Equation 2-6 of Performance Specification 2 in appendix B to part 60 of this chapter or, if applicable, according to the alternative procedure for low emitters described in section 3.1.2.2 of this appendix. If applicable use a flag to indicate that the alternative RA specification for low emitters has been applied.

11.4.4 *Reporting Requirements for Diluent Gas, Flow Rate, and Moisture Monitoring Systems.* For the certification, recertification, diagnostic, and QA tests of stack gas flow rate, moisture, and diluent gas monitoring systems that are certified and quality-assured according to part 75 of this chapter, report the information in section 10.1.9.3 of this appendix.

11.5 *Quarterly Reports.*

11.5.1 Beginning with the report for the calendar quarter in which the initial compliance demonstration is completed or the calendar quarter containing the applicable date in §63.10005(g), (h), or (j) (whichever is earlier), the owner or operator of any affected unit shall use the ECMPS Client Tool to submit electronic quarterly reports to the Administrator, in an XML format specified by the Administrator, for each affected unit (or group of units monitored at a common stack).

11.5.2 The electronic reports must be submitted within 30 days following the end of each calendar quarter, except for units that have been placed in long-term cold storage.

11.5.3 Each electronic quarterly report shall include the following information:

11.5.3.1 The date of report generation;

11.5.3.2 Facility identification information;

11.5.3.3 The information in sections 10.1.2 through 10.1.7 of this appendix, as applicable to the type(s) of monitoring system(s) used to measure the pollutant concentrations and other necessary parameters.

11.5.3.4 The results of all daily calibrations (including calibration transfer standard tests) of the HCl or HF monitor as described in section 10.1.8.1.1 of this appendix; and

11.5.3.5 If applicable, the results of all daily flow monitor interference checks, in accordance with section 10.1.8.2 of this appendix.

11.5.4 *Compliance Certification.* Based on reasonable inquiry of those persons with primary responsibility for ensuring that all HCl and/or HF emissions from the affected unit(s) have been correctly and fully monitored, the owner or operator shall submit a compliance certification in support of each electronic quarterly emissions monitoring report. The compliance certification shall include a statement by a responsible official with that official's name, title, and signature, certifying that, to the best of his or her knowledge, the report is true, accurate, and complete.

[77 FR 9464, Feb. 16, 2012, as amended at 78 FR 24094, Apr. 24, 2013]

**Indiana Department of Environmental Management
Office of Air Quality**

**Addendum to the Technical Support Document (ATSD) for a
Title V - Significant Permit Modification**

Source Background and Description
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Source Name:	IPL - Petersburg Generating Station
Source Location:	6925 N. State Road 57, Petersburg, IN 47567
County:	Pike (Washington Township)
SIC Code:	4911
Operation Permit No.:	T125-30045-00002
Operation Permit Issuance Date:	July 18, 2013
Significant Permit Revision No.:	125-34687-00002
Permit Reviewer:	Daniel W Pell

On March 4, 2015, the Office of Air Quality (OAQ) had a notice published in the Press-Dispatch, in Petersburg, Indiana, stating that IPL - Petersburg Generating Station had applied for a Significant Permit Modification to add filter fabric baghouses BH-2 and BH-3; to incorporate the requirements of 40 CFR Part 63, Subpart UUUUU, (NESHAP) for Coal and Oil-Fired Electric Utility Steam Generating Units to the four (4) boilers identified as Unit 1, Unit 2, Unit 3, and Unit 4, and to install pollution control devices on each of these boilers; and to replace continuous opacity monitoring (COM) systems on boiler Units 1, 2, 3, and 4, with continuous emissions monitoring (CEMS) systems for particulate matter (PM). The notice also stated that the OAQ proposed to issue a Significant Permit Modification for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments and Responses

On March 27, 2015, and March 31, 2015, Mr. Justin Barrett, from IPL, submitted email comments to IDEM, OAQ on the draft Significant Permit Modification.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

Please make the following revisions to clarify that COMs requirements will not apply after PM CEMS is installed, certified, and operating:

C.12 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

This provision C.12, shall ~~apply until the~~ **no longer apply after** PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

...

D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

This provision D.1.6, shall ~~apply until the~~ **no longer apply after** PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

...

D.1.9 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

This provision D.1.9, shall ~~apply until the~~ **no longer apply after** PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

...

D.1.12 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

This provision D.1.12, shall ~~apply until the~~ **no longer apply after** PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

...

D.1.13 Opacity Readings - Response Steps [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

This provision D.1.13, shall ~~apply until the~~ **no longer apply after** PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

...

D.2.86 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

This provision D.2.86, shall ~~apply until the~~ **no longer apply after** PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

...

D.2.1240 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

This provision D.2.1240, shall ~~apply until the~~ **no longer apply after** PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

...

D.2.1543 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

This provision D.2.1543, shall ~~apply until the~~ **no longer apply after** PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Response to Comment 1:

IDEM agrees with the recommended changes, since language clarification for the rule applicability is needed to show the rule applicability after the CEMS has been installed. The permit has been revised as requested above.

Comment 2:

Please make the following revisions to add the statement that these requirements will not apply after PM CEMS is installed, certified, and operating.

D.1.2 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

(d) **This provision D.1.2, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.**

...

D.2.42 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

(c) **This provision D.2.42, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.**

Response to Comment 2:

IDEM agrees with the recommended changes, since language clarification for the rule applicability is needed to show the rule applicability after the CEMS has been installed. The permit has been revised as requested above.

Comment 3:

Please revise the Unit descriptions throughout the permit as follows to accurately reference dates of installation of control devices.

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, activated carbon injection (ACI) ~~installed in 2014~~, **incorporated into the permit in 2015**, and low NOX burner (installed in 1995) for NOX reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses a baghouse ~~installed in 2014~~, **incorporated into the permit in 2015**, FGD scrubber (installed in 1996), activated carbon injection (ACI) ~~installed in 2014~~, **incorporated into the permit in 2015**, and selective catalytic reduction (installed in 2004) as control, and low NOX burner for NOX reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, ~~which will be replaced by a~~ **and a baghouse permitted in 2013, incorporated into the permit in 2015**, activated carbon injection (ACI) ~~installed in 2014~~, **incorporated into the permit in 2015**, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1.
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, activated carbon injection (ACI) ~~installed in 2014~~, **incorporated into the permit in 2015**, and low NOX burner (installed in 2001) for NOX reduction, and exhausts to stack 4-1.

Response to Comment 3:

IDEM does not agree with the changes to indicate when a control device was incorporated into the permit. However, in some cases, clarification was needed to describe the purpose of each control device as well as to accurately show the construction dates and approval dates of the control devices, rather than the date of permit incorporation. The boiler unit descriptions throughout the permit have been revised as noted:

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator **as control for PM emissions; and** FGD scrubber (installed in 1996) **as control for SO2 emissions; activated carbon injection (ACI), (approved in 2013 for construction); and** low NO_x burner (installed in 1995) for NO_x reduction; and exhausts to stack 1-1(s) or bypass stack 1-1 (b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses **an electrostatic precipitator or a baghouse (approved in 2015 for construction), as control for PM emissions; an electrostatic precipitator, FGD scrubber (installed in 1996), as control for SO2 emissions; activated carbon injection (ACI), (approved in 2013 for construction; and** selective catalytic reduction (installed in 2004); ~~as control~~, and low NO_x burner **as control** for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).

- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator **or a baghouse, (approved in 2015 for construction) as control for PM emissions;** activated carbon injection (ACI), **(approved in 2013 for construction);** selective catalytic reduction (installed in 2004) **as control for NO_x emissions;** ~~and an~~ FGD scrubber as control **for SO₂ emissions** and exhausts to stack 3-1.
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator **as control for PM emissions;** ~~and~~ FGD scrubber as control **for SO₂ emissions;** activated carbon injection (ACI), **(approved in 2013 for construction);** ~~and~~ low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.

Comment 4:

Please revise conditions D.1.4 and D.2.64 to specify the controls being referenced.

D.1.4 Particulate Control [40 CFR 64]

Except as otherwise provided by statute or rule or in this permit, in order to comply with Condition D.1.1, the particulate control devices (**baghouse or electrostatic precipitator**) shall be in operation and control emissions from Units 1 and 2 at all times that the respective facilities are in operation.

D.2.64 Particulate Control [40 CFR 64]

Except as otherwise specified in this permit, in order to comply with Condition D.2.34(b), the particulate control devices (**baghouse or electrostatic precipitator**) shall be in operation and control emissions from Units 3 and 4 at all times that the respective facilities are in operation.

Response to Comment 4:

IDEM agrees with the recommended changes in Sections D.1.4 and D.2.64, since clarification was needed to describe the control devices being referenced in these sections. However, to further clarify the control device references in the descriptions in Sections D.1.4 and D.2.64, the language will be changed as follows:

D.1.4 Particulate Control [40 CFR 64]

Except as otherwise provided by statute or rule or in this permit, in order to comply with Condition D.1.1, the particulate control devices (**the electrostatic precipitator for Unit 1, and baghouse or the electrostatic precipitator for Unit 2**), shall be in operation and control emissions from Units 1 and 2 at all times that the respective facilities are in operation.

D.2.64 Particulate Control [40 CFR 64]

Except as otherwise specified in this permit, in order to comply with Condition D.2.34(b), the particulate control devices (**baghouse or the electrostatic precipitator for Unit 3 and the electrostatic precipitator for Unit 4**) shall be in operation and control emissions from Units 3 and 4 at all times that the respective facilities are in operation.

Comment 5:

Please revise conditions D.1.8 and D.2.119 as IPL will install CEMS on both scrubbed and bypass stacks.

D.1.8 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5] [326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 1 and Unit 2 scrubbed stacks to the atmosphere and record the output of the system as specified in paragraphs (a) through (c):...

D.2.119 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5][326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 3 and Unit 4 scrubbed stack to the atmosphere and record the output of the system as specified in paragraphs (a) through (c):

Response to Comment 5:

IDEM agrees with the recommended changes in Sections D.1.8 and D.2.119.

Comment 6:

Please remove the reference to 40 CFR 60.46 in Conditions D.1.8 and D.2.119. IPL is not subject to this requirement. Rather, IPL is subject to the monitoring requirements of 40 CFR 63, Subpart UUUUU.

D.1.8 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5] [326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 1 and Unit 2 scrubbed stacks to the atmosphere and record the output of the system as specified in paragraphs (a) through (c):

(a) The PM CEMS shall be installed, certified, operated, and maintained pursuant to 40 CFR Part 60, Appendix B, Performance Specification #11.

(b) Compliance with the applicable particulate emission limitation in Condition D.1.1 shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data.

~~(c) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 40 CFR 60.46.~~

...

D.2.119 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5][326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 3 and Unit 4 scrubbed stacks to the atmosphere and record the output of the system as specified in paragraphs (a) through (c):

(a) The PM CEMS shall be installed, certified, operated, and maintained pursuant to 40 CFR Part 60, Appendix B, Performance Specification #11.

(b) Compliance with the applicable particulate emission limitation in Condition D.1.1 shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data.

~~(c) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 40 CFR 60.46.~~

Response to Comment 6:

IDEM agrees with the recommended changes in Sections D.1.8 and D.2.119.

Comment 7:

Please revise Conditions D.1.15(a) and D.2.1745(a) to clarify that these requirements no longer apply after PM CEMS have been installed. Correct the typographical errors in Section D.1.15.

D.1.15 Record Keeping Requirements

- (a) To document the compliance status with Section C - Opacity, and Conditions D.1.1, D.1.2, D.1.11 and D.1.1442, the Permittee shall maintain records in accordance with (1) through (5)(4) below. **This provision, D.1.15(a), shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.** Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity, Condition D.1.1 and Condition D.1.2:

D.2.1745 Record Keeping Requirements

- (a) To document the compliance status with Section C - Opacity and Conditions D.2.34, D.2.42, D.2.119, and D.2.1442, the Permittee shall maintain records in accordance with (1) through (4) below. **This provision, D.2.17(a), shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.** Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.34 and D.2.42:

Response to Comment 7:

IDEM agrees with the recommended changes in Sections D.1.15 and D.2.1745, since clarification was needed to indicate that these Record Keeping Requirements no longer apply after PM CEMS have been installed. The typographical errors in Section D.1.15 have been corrected.

Comment 8:

Please remove Condition E.1.3 and E.2.3 as IPL has withdrawn the referenced petition with its March 27, 2015 Withdrawal filing with IDEM. Upon further review, IPL will comply with 40 CFR 60.42(a). Per 40 CFR 60.45(b)(5), COMS are not required for units with PM CEMS. All references in the permit to the IPL Petition should be removed too, including, but not limited to the following - from the Federal Rule Applicability section of the TSD, Table of Contents, and Attachment H.

E.1.3 Approval of Alternate PM Limits Pursuant to 40 CFR 60.42(c)

IDEM is approving IPL's October 14, 2014 petition for approval of Alternate Compliance pursuant to 40 CFR 60.42D(c) IDEM. The effect of this approval is that after the PM CEMS are installed, the applicable PM limit will be the limit in 40 CFR 60.42Da(a).

E.2.3 — Petition for Approval

EPA has approved the Alternate Monitoring of opacity by PM CEMS instead of COMS. The EPA Approval of Alternative Compliance under 40 CFR 60.42D, for the use of CEMS to continuously monitor PM, is included as Attachment H.

Federal Rule Applicability Determination

NSPS:

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

~~(b) IDEM is approving IPL's October 14, 2014 petition for approval of Alternate Compliance pursuant to 40 CFR 60.42D(c) IDEM. The effect of this approval is that after the PM CEMS are installed, the applicable PM limit will be the limit in 40 CFR 60.42Da(a) which will be reflected in Section E.1 of the permit.~~

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~~Attachment H: IPL Petersburg - EPA Approval of Alternate Compliance~~

Response to Comment 8:

IDEM agrees with the removal of Condition E.1.3 and E.2.3 from the permit as IPL has withdrawn the referenced petition with its March 27, 2015 Withdrawal filing with IDEM.

Comment 9:

As previously discussed, Section D.1.1 refers to Units 1 & 2, whereas D.2.34 refers to Units 3 & 4. Please correct section (b) to refer to properly state "D.2.34."

D.2.119 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5][326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 3 and Unit 4 scrubbed stacks to the atmosphere-and record the output of the system as specified in paragraphs (a) through (c):

...

(b) Compliance with the applicable particulate emission limitation in Condition ~~D.1.4~~ **D.2.34** shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data.

Response to Comment 9:

IDEM agrees with the typographical error change in Section D.2.119 (b).

Comment 10:

The final comments from Mr. Justin Barrett included a statement that IPL wanted to request that portions of Modification 17 in the original TSD not be made; specifically, the relocation of Sections D.2.1 and D.2.2 to Section E.1. These Sections should remain in D.2.1 and D.2.2 as they were shown before this modification because they were the result of an Appeal Resolution between IPL and IDEM. Sections D.2.1 and D.2.2, have been returned to Section D.2, and Section E has been renumbered. Sub-section numbers in Section D.2 have been renumbered as a result of this request.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 3 and 4

(c) *****

(d) *****

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Unit 3 and Unit 4 except when otherwise specified in 40 CFR Part 60, Subpart D.

D.2.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR Part 60, Subpart D]

Pursuant to 326 IAC 12 and 40 CFR Part 60, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971), emissions from Unit 3 and Unit 4 shall each not exceed the following:

(a) For particulate matter:

- (1) One-tenth (0.10) pound PM per million Btu (MMBtu) heat input derived from fossil fuel. [40 CFR 60.42(a)(1)]
- (2) Twenty percent (20%) opacity except for one six-minute period per hour of not more than twenty-seven percent (27%) opacity. [40 CFR 60.42(a)(2)] Pursuant to 40 CFR 60.11(c), this opacity standard is not applicable during periods of startup, shutdown, or malfunction.

(b) For sulfur dioxide:

- (1) Eight-tenths (0.80) pound SO₂ per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.43(a)(1)]
- (2) One and two-tenths (1.2) pound SO₂ per million Btu (MMBtu) heat input derived from solid fossil fuel. [40 CFR 60.43(a)(2)]
- (3) When combusting different fossil fuels simultaneously, the applicable SO₂ limit shall be determined using the formula in 40 CFR 60.43(b).

(c) For nitrogen oxides:

- (1) Three-tenths (0.30) pound NO_x per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.44(a)(2)]
- (2) Seven-tenths (0.70) pound NO_x per million Btu (MMBtu) heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing twenty-five percent (25%), by weight, or more of coal refuse). [40 CFR 60.44(a)(3)]

(3) When combusting different fossil fuels simultaneously, the applicable NO_x limit shall be determined using the formula in 40 CFR 60.44(b).

D.2.34 Prevention of Significant Deterioration (PSD) BACT [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (PSD BACT), the following requirements shall apply to Unit 4:

- (a) Sulfur dioxide (SO₂) emissions shall not exceed 1.2 pounds per MMBtu heat input when burning coal.
- (b) PM emissions shall not exceed 0.1 pounds per MMBtu heat input.
- (c) Nitrogen oxides (NO_x) emissions shall not exceed 0.7 pounds per MMBtu heat input.

D.2.42 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 3 and 4:

- (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the PM control device reaches two hundred and fifty (250) degrees Fahrenheit at the inlet to the electrostatic precipitator or inlet to the baghouse for Unit 3, and the inlet to the electrostatic precipitator for Unit 4, whichever occurs first.

For Unit 3, compliance with the opacity limit is determined by adding the Unit 3 Scrubbed and Unit 3 Bypass stacks' opacity exceedances during the startup period. For Unit 4, compliance with the opacity limit is determined by adding the Unit 4 Scrubbed and Unit 4 Bypass stacks' opacity exceedances during the startup period.

- (2) When shutting down a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of two (2) hours (twenty (20) six (6)-minute averaging periods) during the shutdown period.
 - (3) Operation of the electrostatic precipitators are not required during these times.
 - (b) If a facility cannot meet the opacity limitations in (a) and (b) of this condition, the Permittee may submit a written request to IDEM, OAQ, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.
 - (c) This provision, D.2.42, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

D.2.53 Sulfur Dioxide (SO₂) Emission Limitations [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1-2, the SO₂ emissions from Units 3 and 4 shall each not exceed 6.0 pounds per million Btu (lbs/MMBtu), when burning coal or coal in combination with any other fuel, and five-tenths (0.5) pounds per MMBtu when burning fuel oil.

Compliance Determination Requirements

D.2.64 Particulate Control [40 CFR 64]

Except as otherwise specified in this permit, in order to comply with Condition D.2.34(b), the

particulate control devices (baghouse or the electrostatic precipitator for Unit 3 and the electrostatic precipitator for Unit 4) shall be in operation and control emissions from Units 3 and 4 at all times that the respective facilities are in operation.

D.2.75 Sulfur Dioxide Control

- (a) In order to comply with Condition D.2.53, the FGD scrubber for SO₂ control shall be in operation and control emissions from Unit 3 at all times that the respective facility is in operation, except when compliance is determined through the use of low sulfur coal as allowed by 40 CFR Part 60, Subpart D.
- (b) In order to comply with Conditions D.2.34(a) and D.2.53, the FGD scrubber for SO₂ control shall be in operation and control emissions from Unit 4 at all times that the facility is in operation, except where compliance is achieved by use of low sulfur coal as allowed by 40 CFR 60, Subpart D.

D.2.86 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) This provision, D.2.86, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Unit 3 and Unit 4

- (1) In order to demonstrate the compliance status with Condition D.2.34(b), the Permittee shall perform PM testing on Unit 3 and Unit 4. These tests shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

Baghouse for Unit 3

- (2) Within ~~365~~ 480 days after issuance of this Permit T125-34687-00002, in order to demonstrate compliance with Condition D.2.34(b), the Permittee shall perform PM testing on the Baghouse for Unit 3 utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every two (2) calendar years following valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

D.2.97 Fuel Sampling and Analysis

In order to demonstrate compliance with Condition D.2.34(a), when the SO₂ continuous emissions monitor is down and coal is fired in the Unit 3 or Unit 4, the Permittee shall conduct coal sampling and analysis required by 40 CFR 60, Subpart D.

D.2.108 Continuous Emission Monitoring System (CEMS) for SO₂, NO_x, and CO₂ [326 IAC 3-5][40 CFR Part 75]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment for SO₂, NO_x and CO₂ emissions.
- (b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR Parts 60, 75, and 98 as applicable.
- (c) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to

correct the problem.

- (d) Whenever a continuous emission monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:
 - (1) If the CEMS is required for monitoring NO_x or SO₂ emissions pursuant to 40 CFR 75 (Title IV Acid Rain program), the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D – Missing Data Substitution Procedures.
 - (2) If the CEMS is not used to monitor NO_x or SO₂ emissions pursuant to 40 CFR 75, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 40 CFR 60.

D.2.119 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS)
[326 IAC 3-5][326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 3 and Unit 4 stacks to the atmosphere and record the output of the system as specified in paragraphs (a) through (c):

- (a) The PM CEMS shall be installed, certified, operated, and maintained pursuant to 40 CFR Part 60, Appendix B, Performance Specification #11.
- (b) Compliance with the applicable particulate emission limitation in Condition D.2.34 shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data.
- (c) Whenever this PM CEMS is malfunctioning or down for repair or adjustments for 24 hours or more, and a backup CEMS is not brought on-line, the following shall be used to provide information related to particulate emissions:
 - (1) The ability of the FGD to control particulate matter emissions shall be monitored once per day when Unit 3 and Unit 4 are in operation by measuring and recording the following:
 - (a) Number of recycle pumps in service; and
 - (b) Absorber pH.

D.2.1240 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

This provision, D.2.1240, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), and 326 IAC 2, a continuous monitoring system shall be installed, calibrated, maintained, and operated to measure the opacity of the exhaust from Units 3 and 4. The continuous opacity monitoring system (COMS) shall meet the performance specifications of 326 IAC 3-5-2.
- (b) The COMS must operate and record data during all periods of operation of the affected

facilities including periods of startup, shutdown, malfunction or emergency conditions, except for COMS breakdowns, repairs, calibration checks, and zero and span adjustments.

- (c) All COMS are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a COMS pursuant to 326 IAC 3-5 and 40 CFR Part 75.

D.2.1344 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-2-1(a) and (c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the applicable limits in Condition D.2.53. Compliance with these limits shall be determined using SO₂ CEMS data and demonstrated using a thirty (30) day rolling weighted average.

D.2.1442 ORDER of the Commissioner of the Indiana Department of Environmental Management

Pursuant to Indiana Code § 13-14-2-6 and in order to secure compliance with 40 CFR Part 63, Subpart UUUUU, Indianapolis Power & Light Company, Petersburg Station is subject to following ORDER:

1. Indianapolis Power & Light Company shall submit a status report within fifteen (15) days of completion of the following milestones indicating the actual dates of completion:
 - a. The date on-site construction for the installation of the emission control equipment identified in Attachment A (of the Commissioner Order) for Petersburg Unit 3 and 4 are initiated, and
 - b. The date on-site construction for the installation of the emission control equipment identified in Attachment A (of the Commissioner Order) for Petersburg Unit 3 and 4 are completed.
 - c. The date by which final compliance with 40 CFR 63, Subpart UUUUU for Petersburg Unit 3 and 4 are achieved.
2. Indianapolis Power & Light Company, Petersburg Station Unit 3 and 4 shall comply with the standards set forth in 40 CFR Part 63, Subpart UUUUU no later than April 16, 2016.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

D.2.1543 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

This provision, D.2.1543, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) The ability of the ESP to control particulate emissions shall be monitored once per day, when the unit is in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the T-R sets.
- (b) Reasonable response steps shall be taken in accordance with Section C - Response to Excursions or Exceedances whenever the percentage of T-R sets in service falls below 90 percent (90%). T-R set failure resulting in less than 90 percent (90%) availability is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation

from this permit.

D.2.1614 **SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]**

- (a) Whenever the SO₂ continuous emission monitoring (CEMS) system is malfunctioning or down for repairs or adjustments and a backup CEMS is not brought on-line, the following shall be used to provide information related to SO₂ emissions:
- (1) If the CEM system is down for less than twenty-four (24) hours and a backup CEMS is not brought on-line, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
 - (2) Whenever the SO₂ continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, and a backup CEMS cannot be brought on-line, the Permittee shall comply with the requirements of 40 CFR 75 Subpart D to demonstrate compliance with Condition D.2.34(a) until the primary CEMS or a backup CEMS is brought online.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.1745 **Record Keeping Requirements**

- (a) To document the compliance status with Section C - Opacity and Conditions D.2.34, D.2.42, D.2.119, and D.2.1412, the Permittee shall maintain records in accordance with (1) through (5) below. This provision, D.2.1745(a), shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit. Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.34 and D.2.42:
- (1) Data and results from the most recent stack test until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit;
 - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6 until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit;
 - (3) The results of all Method 9 visible emission readings taken during any periods of COMS downtime when the scrubber is not in service until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit;
 - (4) PM, HCl and Hg CEMS data after the PM, HCl and Hg CEMS is installed, certified and operating to measure PM, HCl and Hg emissions pursuant to this permit; and
 - (5) All ESP parametric monitoring readings.
- (b) To document the compliance status with Conditions D.2.34, D.2.53, D.2.108, D.2.1344, and D.2.1614, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the SO₂ limits as required in Conditions D.2.34 and D.2.53.
- (1) All SO₂ continuous emissions monitoring data, pursuant to 326 IAC 3-5-6.
 - (2) All scrubber parametric monitoring readings taken in accordance with Condition

D.2.75.

- (3) Calculated fuel usage during each SO₂ CEMS downtime for Unit(s) affected by CEMS downtime lasting 24 hours or more.
- (4) The substitute data used for the missing data periods if data substitution pursuant to 40 CFR Part 75 Subpart D is used to provide data for the SO₂ CEMS downtime, in accordance with Condition D.2.1644.
- (c) To document the compliance status with Conditions D.2.34, and D.2.108, the Permittee shall maintain records of all NO_x continuous emissions monitoring data, pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NO_x limits as required in Condition D.2.34.
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

D.2.1846 Reporting Requirements

- (a) A quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions D.2.75, D.2.108, and D.2.119, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime (except for zero (0) and span checks, which shall be reported separately) shall include the following:
 - (1) Date of downtime;
 - (2) Time of commencement;
 - (3) Duration of each downtime;
 - (4) Reasons for each downtime; and
 - (5) Nature of system repairs and adjustments.

The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 3 and 4

- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator or a baghouse, (approved in 2015 for construction) as control for PM emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004) as control for NO_x emissions; FGD scrubber as control for SO₂ emissions and exhausts to stack 3-1.

- (d) — One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator as control for PM emissions; FGD scrubber as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

New Source Performance Standards [326 IAC 12] [40 CFR 60, Subpart D]

E.1.1 — General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

- (a) — The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Unit 3 and Unit 4 except when otherwise specified in 40 CFR Part 60, Subpart D.
- (b) — Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 — New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR Part 60, Subpart D]

Pursuant to 40 CFR Part 60, Subpart D, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart D, which are incorporated by reference as 326 IAC 12 (included as Attachment D to this permit), for the above listed emissions units as specified as follows:

- (a) — For particulate matter prior to PM CEMS installation, certification, and operation to measure PM emissions pursuant to this permit:
- (1) — One-tenth (0.10) pound PM per million Btu (MMBtu) heat input derived from fossil fuel. [40 CFR 60.42(a)(1)]
- (2) — Twenty percent (20%) opacity except for one six-minute period per hour of not more than twenty-seven percent (27%) opacity. [40 CFR 60.42(a)(2)] Pursuant to 40 CFR 60.11(c), this opacity standard is not applicable during periods of startup, shutdown, or malfunction.
- (b) — Pursuant to 40 CFR 60.42D(c), for particulate matter after PM CEMS installation, certification, and operation to measure PM emissions pursuant to this permit:
- (1) — 0.03 pound PM per million Btu (MMBtu) heat input derived from fossil fuel. [40 CFR 60.42Da(a)]
- (c) — For sulfur dioxide:
- (1) — Eight tenths (0.80) pound SO₂ per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.43(a)(1)]
- (2) — One and two-tenths (1.2) pound SO₂ per million Btu (MMBtu) heat input derived from solid fossil fuel. [40 CFR 60.43(a)(2)]

~~(3) When combusting different fossil fuels simultaneously, the applicable SO₂ limit shall be determined using the formula in 40 CFR 60.43(b).~~

~~(d) For nitrogen oxides:~~

~~(1) Three tenths (0.30) pound NO_x per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.44(a)(2)]~~

~~(2) Seven tenths (0.70) pound NO_x per million Btu (MMBtu) heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing twenty five percent (25%), by weight, or more of coal refuse). [40 CFR 60.44(a)(3)]~~

~~(3) When combusting different fossil fuels simultaneously, the applicable NO_x limit shall be determined using the formula in 40 CFR 60.44(b).~~

SECTION E.12

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator as control for PM emissions; FGD scrubber (installed in 1996) as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 1995) for NO_x reduction; and exhausts to stack 1-1(s) or bypass stack 1-1 (b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator or a baghouse (approved in 2015 for construction), as control for PM emissions; FGD scrubber (installed in 1996), as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004); and low NO_x burner as control for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator or a baghouse, (approved in 2015 for construction) as control for PM emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004) as control for NO_x emissions; FGD scrubber as control for SO₂ emissions and exhausts to stack 3-1.
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator as control for PM emissions; FGD scrubber as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR 63]

E.12.1 General Provisions Relating to NESHAP [326 IAC 20-82][40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to the Boilers 1, 2, 3, and 4.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.12.2 NESHAP Subpart UUUUU Requirements [326 IAC 20-82][40 CFR Part 63, Subpart UUUUU]

Pursuant to 40 CFR Part 63, Subpart UUUUU, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart UUUUU, which are incorporated by reference as 326 IAC 20 (included as Attachment G to this permit), for the above listed emissions units, as specified as follows.

The four (4) Boiler Units 1, 2, 3, and 4, are subject to the following portions of Subpart UUUUU:

- (1) 40 CFR 63.9980
- (2) 40 CFR 63.9981
- (3) 40 CFR 63.9982(a)(1), (d)
- (4) 40 CFR 63.9984(b), (c), (f)
- (5) 40 CFR 63.9990(a)(1)
- (6) 40 CFR 63.9991(a)(1), (b)
- (7) 40 CFR 63.10000(a), (b), (c)(1)(i)(A), (c)(1)(iv)(B), (c)(1)(v), (c)(1)(vi), (d)(1), (d)(2), (e)
- (8) 40 CFR 63.10001
- (9) 40 CFR 63.10005(a)(2)(i), (b)(2), (b)(3), (b)(4), (d)(1), (d)(3), (e), (f), (j), (k)
- (10) 40 CFR 63.10006(i), (j)
- (11) 40 CFR 63.10007(a)(1), (b), (e)(2)(ii), (e)(2)(v), (f)
- (12) 40 CFR 63.10009
- (13) 40 CFR 63.10010(a)(1), (a)(4), (b), (d), (e), (g), (i)
- (14) 40 CFR 63.10011(a), (c), (f), (g)
- (15) 40 CFR 63.10020
- (16) 40 CFR 63.10021(a), (b), (e), (f), (g), (h), (i)
- (17) 40 CFR 63.10022(a)(1), (b)
- (18) 40 CFR 63.10030(a), (b), (d), (e)
- (19) 40 CFR 63.10031
- (20) 40 CFR 63.10032(a), (b), (c), (d)(1), (e), (f), (g), (h), (i)
- (21) 40 CFR 63.10033
- (22) 40 CFR 63.10040
- (23) 40 CFR 63.10041
- (24) 40 CFR 63.10042
- (25) 40 CFR 63, Subpart UUUUU, Table 2(1)
- (26) 40 CFR 63, Subpart UUUUU, Table 3(1), (3), (4)
- (27) 40 CFR 63, Subpart UUUUU, Table 5(1), (3), (4)
- (28) 40 CFR 63, Subpart UUUUU, Table 7(1), (5), (6), (7)
- (29) 40 CFR 63, Subpart UUUUU, Table 8
- (30) 40 CFR 63, Subpart UUUUU, Table 9

SECTION E.23

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(14)]: Insignificant Activities

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (e) One (1) diesel emergency internal combustion engine used to power a fire water pump, installed in 1975, identified as FP-1, with a maximum heat input capacity of 0.483 MMBtu/hr and a rating of 250 brake horsepower (bhp).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants [40 CFR 63, Subpart ZZZZ]
Emission Limitations and Standards [326 IAC 2-7-5(1)]

E.23.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]

- (a) The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to FP-1, except when otherwise specified in 40 CFR 63, Subpart ZZZZ.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.23.2 Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]

Pursuant to 40 CFR 63 Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR 63 Subpart ZZZZ (included as Attachment F to this permit), which are incorporated as 326 IAC 20-82 for the FP-1, as specified as follows:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(1)(ii)
- (4) 40 CFR 63.6595(a)(1)
- (5) 40 CFR 63.6602
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6612
- (8) 40 CFR 63.6620
- (9) 40 CFR 63.6625(e),(f),(h),(i)
- (10) 40 CFR 63.6640(a),(b),(e),(f)
- (11) 40 CFR 63.6645(a)(5)
- (12) 40 CFR 63.6650(a),(b)(1)-(5),(c),(d),(e),(f)
- (13) 40 CFR 63.6655(a)(1),(2),(4),(b),(d),(e),(f)(1)
- (14) 40 CFR 63.6660
- (15) 40 CFR 63.6665
- (16) 40 CFR 63.6670

- (17) 40 CFR 63.6675
(18) Table 2c(1), 6(9), 7(a) and 8.

SECTION E.34

TITLE IV CONDITIONS

ORIS Code: 994

Facility Description [326 IAC 2-7-5(14)]

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator as control for PM emissions; FGD scrubber (installed in 1996) as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 1995) for NO_x reduction; and exhausts to stack 1-1(s) or bypass stack 1-1 (b).
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses an electrostatic precipitator or a baghouse (approved in 2015 for construction), as control for PM emissions; FGD scrubber (installed in 1996), as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004); and low NO_x burner as control for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b).
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator or a baghouse, (approved in 2015 for construction) as control for PM emissions; activated carbon injection (ACI), (approved in 2013 for construction); selective catalytic reduction (installed in 2004) as control for NO_x emissions; FGD scrubber as control for SO₂ emissions and exhausts to stack 3-1.
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator as control for PM emissions; FGD scrubber as control for SO₂ emissions; activated carbon injection (ACI), (approved in 2013 for construction); low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Acid Rain Program

E.34.1 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]

Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain permit issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78. The Acid Rain permit for this source is attached to this permit as Appendix C, and is incorporated by reference.

E.34.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations:

- (a) No revision of this permit shall be required for increases in emissions that are authorized by allowances acquired under the Title IV Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement.

- (b) No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not use allowances as a defense to noncompliance with any other applicable requirement.
- (c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act.

Response to Comment 10:

IDEM agrees to return Sections D.2.1 and D.2.2 to their previous location in Section D.2 from Section E.1. The sub-sections in Section E have been renumbered.

Additional Changes

IDEM, OAQ has decided to make additional revisions to the permit as described below, with deleted language as ~~strikeouts~~ and new language **bolded**.

Change A: The particulate emission limits in Section D.1., for Boiler Units 1 and 2 are incorrect. There are two exhaust stacks, not one. Therefore, N should equal 2, rather than 1. Also, pursuant to 326 IAC 6-2-3(b), the emission limitations for those indirect heating facilities which were in existence and in operation on or before June 8, 1972, shall be calculated using the Pt equation as noted below:

D.1.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

(a) ~~Pursuant to 326 IAC 6-2-3(d), particulate emissions from Unit 1 shall not exceed 0.8 pounds per MMBtu.~~

(b) Pursuant to 326 IAC 6-2-3(b), the particulate matter emissions from **Unit 1 and Unit 2** shall not exceed **0.38** ~~0.46~~ lb per MMBtu when exhausting to the main stack and **0.37** ~~0.44~~ lb per MMBtu when exhausting to the bypass stack. The pounds per million Btu limits were calculated using the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where C = 50 u/m³

Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)

Q = total source maximum operating capacity rating (Q = 6344 MMBtu/hr)

N = number of stacks (N = **2**)

a = plume rise factor (a = 0.8)

h = stack height (h = 621 ft; h of bypass stack = 604.5 ft)

Change B: The language in Section D.1.2 was clarified to be specifically applicable to the PM control devices for Unit 1 and Unit 2. The language in Section D.2.42 was clarified to be specifically applicable to the PM control devices for Unit 3 and Unit 4.

D.1.2 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

(a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 1 and 2:

- (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the PM control device reaches two hundred and

fifty (250) degrees Fahrenheit at the inlet of the electrostatic precipitator **for Unit 1 and the inlet of the electrostatic precipitator or inlet of the baghouse for Unit 2**, whichever occurs first.

D.2.42 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 3 and 4:
- (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the PM control device reaches two hundred and fifty (250) degrees Fahrenheit at the inlet to the **electrostatic precipitator or inlet to the baghouse for Unit 3, and the inlet to the electrostatic precipitator for Unit 4**, whichever occurs first.

Change C: The language in Section D.2.97, Fuel Sampling and Analysis, was clarified to indicate that coal sampling must occur when the SO₂ CEMS is down no matter what the Sulfur content may be in the coal.

D.2.97 Fuel Sampling and Analysis

In order to demonstrate compliance with Condition D.2.34(a), when the SO₂ continuous emissions monitor is down and **coal is fired in the Unit 3 or Unit 4**, ~~low-sulfur coal is used to control SO₂~~, the Permittee shall conduct coal sampling and analysis required by 40 CFR 60, Subpart D.

Change D: Language was added in Section D.2.1846 (a) to clarify that quarterly reports involving exceedances and compliance are required for the emissions that are monitored by CEMS.

D.2.1846 Reporting Requirements

- (a) A quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Conditions ~~D.2.75~~, **D.2.10, and D.2.11**, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(35).

Change E: Language was added in Section E.12.1 which notes that all required notifications and reports are to be submitted to the Indiana Department of Environmental Management.

E.12.1 General Provisions Relating to NESHAP [326 IAC 20-82][40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to the Boilers 1, 2, 3, and 4.
- (b) **Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:**

**Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**

Change F: Language was added and modified in Section E.12.2 to clarify that the applicable portions of NESHAP, Subpart UUUUU, had been included in the permit as Attachment G.

E.12.2 NESHAP Subpart UUUUU Requirements [326 IAC 20-82][40 CFR Part 63, Subpart UUUUU]

Pursuant to 40 CFR Part 63, Subpart UUUUU, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart UUUUU, which are incorporated by reference as 326 IAC 20 (included as Attachment G to this permit), for the above listed emissions units, as specified as follows.

~~The Permittee shall comply with all applicable provisions of the "National Emission Standards for Hazardous Air Pollutants" as found in 40 CFR Subpart A, "General Provisions" and 40 CFR 63, Subpart UUUUU, "National Emission Standards for Hazardous Air Pollutants from Coal-fired Electric Utility Steam Generating Units" for operation of steam generating units. [40 CFR 63, Subpart A and UUUUU]~~

Change G: Language was added in Section E.23.1 which notes that all required notifications and reports are to be submitted to the Indiana Department of Environmental Management.

E.23.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]

(a) The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to FP-1, except when otherwise specified in 40 CFR 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

**Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**

Change H: Language was added and modified in Section E.23.2 to clarify that the applicable portions of NESHAP, Subpart ZZZZ, had been included in the permit as Attachment F.

E.23.2 Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]

Pursuant to 40 CFR 63 Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR 63 Subpart ZZZZ (included as Attachment F to this permit) which are incorporated as 326 IAC 20-82 for the FP-1, as specified as follows:

Change I: Language was added and modified in Section D.1.6 and Section D.2.86 to clarify the testing conditions for the new baghouses for Unit 2 and Unit 3.

D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) This provision, D.1.6, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Unit 1 and Unit 2

(1) In order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing for Units 1 and 2, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted

in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

Baghouse for Unit 2

- (2) **Within 180 days after issuance of this Permit T125-34687-00002, in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing on the Baghouse for Unit 2 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.**

D.2.86 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) This provision, D.2.86, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Unit 3 and Unit 4

- (1) In order to demonstrate the compliance status with Condition D.2.34(b), the Permittee shall perform PM testing on Unit 3 and Unit 4. These tests shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.

Baghouse for Unit 3

- (2) **Within 365 days after issuance of this Permit T125-34687-00002, in order to demonstrate compliance with Condition D.2.3(b), the Permittee shall perform PM testing on the Baghouse for Unit 3 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two (2) calendar years following valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligations with regard to the performance testing required by this condition.**

Change J: Corrections and additions to the Table of Contents were made as a result of this permit modification.

D.2. EMISSIONS UNIT OPERATION CONDITIONS - Boilers 3 and 4

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]**
D.2.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR 60, Subpart D]
~~D.2.34~~ Prevention of Significant Deterioration (PSD) BACT [326 IAC 2-2-3]
~~D.2.42~~ Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]
~~D.2.53~~ Sulfur Dioxide (SO₂) Emission Limitations [326 IAC 7-1.1]

Compliance Determination Requirements

- ~~D.2.64~~ Particulate Control [40 CFR 64]
~~D.2.75~~ Sulfur Dioxide Control

- D.2.86 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]
- D.2.97 Fuel Sampling and Analysis
- D.2.108 Continuous Emission Monitoring System (CEMS) [326 IAC 3-5][40 CFR Part 75]
- D.2.119 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5][326 IAC 2-7-5(3)(A)(iii)]
- D.2.1240 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]
- D.2.1344 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]
- D.2.1442 ORDER of the Commissioner of the Indiana Department of Environmental Management

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

- D.2.1543 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

- D.2.1644 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.2.1745 Record Keeping Requirements
- D.2.1846 Reporting Requirements

~~D.8 EMISSIONS UNIT OPERATION CONDITIONS - NESHAP ZZZZ~~

- D.8.1 ~~General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]~~
- D.8.2 ~~Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]~~

~~D.8D.9. EMISSIONS UNIT OPERATION CONDITIONS - Activated Carbon Injection System~~

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.89.1 PSD Minor Limit [326 IAC 2-2]
- D.89.2 Particulate [326 IAC 6-3-2]

Compliance Determination Requirements

- D.89.3 Particulate Control [326 IAC 2-7-6(6)]
- D.89.4 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]
- D.89.5 Record Keeping Requirements

~~SECTION E.1 EMISSIONS UNIT OPERATIONS CONDITIONS~~

- E.1.1 ~~General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]~~
- E.1.2 ~~New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR 60, Subpart D]~~
- E.1.3 ~~Approval of Alternate PM Limits Pursuant to 40 CFR 60.42(c)~~

SECTION E.12 EMISSIONS UNIT OPERATION CONDITIONS

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR 63]

- E.12.1 General Provisions Relating to NESHAP [326 IAC 20-82][40 CFR Part 63, Subpart A]
- E.12.2 NESHAP Subpart UUUUU Requirements [326 IAC 20-82][40 CFR Part 63, Subpart UUUUU]
- E.2.3 Petition for Approval

SECTION E.23 EMISSIONS UNIT OPERATION CONDITIONS - NESHAP ZZZZ

- E.23.1 General Provisions Relating to National Emission Standards for Hazardous Air

**E.23.2 Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]
Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82]
[40 CFR 63, Subpart ZZZZ]**

SECTION E.33 ACID RAIN PROGRAM CONDITIONS

- E.33.1** Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]
E.33.2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

IDEM Contact

- (a) Questions regarding this proposed Significant Permit Modification can be directed to Daniel W Pell at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-8532 or toll free at 1-800-451-6027 extension 4-8532.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD) for a Part 70 Significant Permit
Modification**

Source Description and Location

Source Name:	IPL - Petersburg Generating Station
Source Location:	6925 N. State Road 57, Petersburg, IN 47567
County:	Pike (Washington Township)
SIC Code:	4911
Operation Permit No.:	T 125-30045-00002
Operation Permit Issuance Date:	July 18, 2013
Significant Permit Modification No.:	T125-34687-00002
Permit Reviewer:	Daniel W Pell

Existing Approvals

The source was issued Part 70 Operating Permit No. T125-30045-00002 on July 18, 2013. The source has since received the following approvals:

- (a) Significant Permit Modification, T125-33773-00002, issued on January 10, 2014; and
- (b) Acid Rain - Third Renewal, AR 125-34192-00002, issued May 14, 2014.

County Attainment Status

The source is located in Pike County.

Pollutant	Designation
SO ₂	Non-attainment effective October 4, 2013, for the 2010 SO ₂ standard for Washington Township. Better than national standards for the remainder of the county.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹
PM _{2.5}	Attainment effective October 27, 2011, for the annual PM _{2.5} standard for Washington Township. Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard for the remainder of the county.
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) **Ozone Standards**

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Pike County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM_{2.5}**
Pike County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) **SO₂**
U.S. EPA, in the Federal Register Notice 78 FR 47191 dated August 5, 2013, has designated Pike County, Washington Township, as nonattainment for SO₂. Therefore, SO₂ emissions were reviewed pursuant to the requirements of Emission Offset, 326 IAC 2-3.
- (d) **Other Criteria Pollutants**
Pike County has been classified as attainment or unclassifiable in Indiana for all other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a fossil fuel fired steam electric plant of more than 250 MMBtu/hr heat input, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (ton/yr)
PM	529,878
PM ₁₀	122,470
PM _{2.5}	33,088
SO ₂	924,928
VOC	288.07
CO	2,745
NO _x	71,657
Single HAPs	> 10
Total HAPs	> 25

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a PSD regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) This existing source is a major stationary source, under Emission Offset (326 IAC 2-3), because SO₂, a nonattainment regulated pollutant, is emitted at a rate of 100 tons per year or more.
- (c) These emissions are based upon the Title V Operating Permit, T125-30045-00002, issued on July 18, 2013.
- (d) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by IPL - Petersburg Generating Station July 1, 2014, relating to the descriptions, additions, and modifications as listed below:

- (a) The addition of One (1) filter fabric baghouse, identified as BH-2, constructed in 2015, which will serve boiler Unit 2; and
- (b) The addition of One (1) filter fabric baghouse, identified as BH-3, constructed in 2015, which will serve boiler Unit 3; and
- (c) The incorporation of requirements of 40 CFR Part 63, Subpart UUUUU, (NESHAP) for Coal and Oil-Fired Electric Utility Steam Generating Units to the four (4) boilers identified as Unit 1, Unit 2, Unit 3, and Unit 4; and the installation of pollution control devices on each of these boilers, and
- (d) Modifications to monitoring requirements including the replacement of continuous opacity monitoring (COM) systems on boiler Units 1, 2, 3, and 4, with continuous emissions monitoring (CEMS) for particulate matter (PM).

Enforcement Issues

There are no pending enforcement actions related to this modification.

Permit Level Determination – Part 70 Modification to an Existing Source

This modification is not subject to the source modification requirements under 326 IAC 2-7-10.5 because there are no emission increases. Pursuant to 326 IAC 2-7-12(d)(1), this modification is considered a significant permit modification because the modification involves significant changes to existing monitoring, reporting, and record keeping requirements.

Permit Level Determination – PSD

This modification to an existing major stationary source is not major because there are no emission increases. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

NSPS:

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) IDEM is approving IPL's October 14, 2014 petition for approval of Alternate Compliance pursuant to 40 CFR 60.42D(c) IDEM. The effect of this approval is that after the PM CEMS are installed, the applicable PM limit will be the limit in 40 CFR 60.42Da(a) which will be reflected in Section E.1 of the permit.

NESHAP:

- (c) The four (4) Boiler Units 1, 2, 3, and 4, are subject to the National Emission Standards for Hazardous Air Pollutants for Coal and Oil-Fired Electric Utility Steam Generating Units (40 CFR 63, Subpart UUUUU).

The four (4) Boiler Units 1, 2, 3, and 4, are subject to the following portions of Subpart UUUUU:

- (1) 40 CFR 63.9980

- (2) 40 CFR 63.9981
- (3) 40 CFR 63.9982(a)(1), (d)
- (4) 40 CFR 63.9984(b), (c), (f)
- (5) 40 CFR 63.9990(a)(1)
- (6) 40 CFR 63.9991(a)(1), (b)
- (7) 40 CFR 63.10000(a), (b), (c)(1)(i)(A), (c)(1)(iv)(B), (c)(1)(v), (c)(1)(vi), (d)(1), (d)(2), (e)
- (8) 40 CFR 63.10001
- (9) 40 CFR 63.10005(a)(2)(i), (b)(2), (b)(3), (b)(4), (d)(1), (d)(3), (e), (f), (j), (k)
- (10) 40 CFR 63.10006(i), (j)
- (11) 40 CFR 63.10007(a)(1), (b), (e)(2)(ii), (e)(2)(v), (f)
- (12) 40 CFR 63.10009
- (13) 40 CFR 63.10010(a)(1), (a)(4), (b), (d), (e), (g), (i)
- (14) 40 CFR 63.10011(a), (c), (f), (g)
- (15) 40 CFR 63.10020
- (16) 40 CFR 63.10021(a), (b), (e), (f), (g), (h), (i)
- (17) 40 CFR 63.10022(a)(1), (b)
- (18) 40 CFR 63.10030(a), (b), (d), (e)
- (19) 40 CFR 63.10031
- (20) 40 CFR 63.10032(a), (b), (c), (d)(1), (e), (f), (g), (h), (i)
- (21) 40 CFR 63.10033
- (22) 40 CFR 63.10040
- (23) 40 CFR 63.10041
- (24) 40 CFR 63.10042
- (25) 40 CFR 63, Subpart UUUUU, Table 2(1)
- (26) 40 CFR 63, Subpart UUUUU, Table 3(1), (3), (4)
- (27) 40 CFR 63, Subpart UUUUU, Table 5(1), (3), (4)
- (28) 40 CFR 63, Subpart UUUUU, Table 7(1), (5), (6), (7)
- (29) 40 CFR 63, Subpart UUUUU, Table 8
- (30) 40 CFR 63, Subpart UUUUU, Table 9

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart UUUUU.

- (d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

Compliance Assurance Monitoring (CAM)

- (e) Pursuant to 40 CFR 64.2(b)(vi), the CAM requirements will no longer be applicable to Boilers 1, 2, 3, or 4, after the operation of CEMS for PM.

The requirements of 40 CFR Part 64, CAM shall remain applicable to the remaining emission units as previously permitted.

State Rule Applicability Determination

There are no new State Rules that are applicable due to this proposed modification.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination

Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

New compliance determination and monitoring requirements applicable per 40 CFR Part 63, Subpart UUUUU are added to the permit as shown in the Proposed Changes section below. Changes to the compliance determination and monitoring requirements are detailed in the Proposed Changes section of this document.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T125-30045-00002. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

Modification No. 1: Language changes to the description of the boiler emission units in Section A.2 occurred as a result of the requirements of 40 CFR 63, UUUUU, and that CEMS will be replacing COM.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, **activated carbon injection (ACI), incorporated into the permit in 2015**, and low NO_x burner (installed in 1995) for NO_x reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). ~~Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses **a baghouse incorporated into the permit in 2015**, an electrostatic precipitator, FGD scrubber (installed in 1996), **activated carbon injection (ACI), incorporated into the permit in 2015**, and selective catalytic reduction (installed in 2004) as control, and low NO_x burner for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). ~~Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, **and a baghouse, incorporated into the permit in 2015, activated carbon injection (ACI), incorporated into the permit in 2015**, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. ~~Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, **activated carbon injection (ACI), incorporated into the permit in 2015**, and low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1. ~~Unit 4 has continuous emissions monitors (CEMS) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

Modification No. 2: The language in Section C.12 has been modified as a result of this permit modification. The CEMS will be replacing COMS.

C.12 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

This provision, C.12, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Modification No. 3: Section C.13 was retitled as 'Reserved', and its contents and CEMS monitoring language were modified and moved to Sections D.1.7 and D.2.10 as a result of the replacement of COMS with CEMS for Boiler Units 1 through 4.

C.13 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)] [Reserved]

- (a) ~~The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.~~
- (b) ~~All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR or any other performance specification, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.~~
- (c) ~~In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.~~
- (d) ~~Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:~~
- (1) ~~If the CEMS is required for monitoring NO_x or SO₂ emissions pursuant to 40 CFR 75 (Title IV Acid Rain program) or 326 IAC 10-4 (NO_x Budget Trading Program), the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D — Missing Data Substitution Procedures.~~
- (2) ~~If the CEMS is not used to monitor NO_x or SO₂ emissions pursuant to 40 CFR 75 or 326 IAC 10-4, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.~~
- (e) ~~Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 326 IAC 10-4, 40 CFR 60.~~

Modification No. 4: The language in Section D.1.2 has been modified as a result of this permit modification. The Emissions Unit Description Table has been modified as a result of this permit modification. The CEMS will be replacing COMS

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 1 and 2

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, **activated carbon injection (ACI), incorporated into the permit in 2015**, and low NO_x burner (installed in 1995) for NO_x reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). ~~Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses **a baghouse incorporated into the permit in 2015**, ~~an electrostatic precipitator~~, FGD scrubber (installed in 1996), **activated carbon injection (ACI), incorporated into the permit in 2015**, and selective catalytic reduction (installed in 2004) as control, and low NO_x burner for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). ~~Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

D.1.2 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

(a) *****

- (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the **ESP PM control device** reaches two hundred and fifty (250) degrees Fahrenheit at the inlet of the electrostatic precipitator, whichever occurs first.

- (d) **This provision, D.1.2, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.**

Modification No. 5: The language in Section D.1.4 has been modified as a result of this permit modification.

D.1.4 Particulate Control [40 CFR 64]

Except as otherwise provided by statute or rule or in this permit, in order to comply with Condition D.1.1, the ~~electrostatic precipitators~~ for particulate control **devices (baghouse or electrostatic precipitator)** shall be in operation and control emissions from Units 1 and 2 at all times that the respective facilities are in operation.

Modification No. 6: The language in Section D.1.6 has been modified because Condition D.1.6, shall apply until the PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit. The CEMS will be replacing COMS.

D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

This provision, D.1.6, shall apply until the no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) In order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM

testing for Units 1 and 2, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two (2) calendar years following this valid compliance demonstration. Testing shall be conducted in accordance with Section C-Performance Testing.

- (b) **Until the continuous emission monitoring system (CEMS) for monitoring particulate matter from the boilers is installed, certified and operating, the Permittee shall comply with the requirements of Condition D.1.6.**

Modification No. 7: Language changes in Section D.1.7 occurred as a result of changes to the requirements for continuous emissions monitoring for boilers identified as Unit 1 and Unit 2 because the CEMS will be replacing COMS. Section C.13 was retitled as 'Reserved', and its contents and CEMS monitoring languages were modified and moved to Section D.1.7 as a result of the replacement of COMS with CEMS.

D.1.7 Continuous Emission Monitoring System (CEMS) for SO₂, NO_x, and CO₂ [326 IAC 3-5] [40 CFR Part 75]

-
- ~~(a) Pursuant to 326 IAC 3-5-1 and 40 CFR Part 75, the Permittee must calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring SO₂, NO_x, and CO₂ emissions from Units 1 and 2. Each CEMS must meet all applicable performance specifications of 326 IAC 3-5-2 and 40 CFR Part 75. The data from the respective CEMS shall be used to determine compliance with Condition D.1.3.~~
- ~~(b) The CEMS must operate and record data during all periods of operation of the affected facilities including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.~~
- ~~(c) All CEMS are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.~~
- ~~(d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a CEMS pursuant to 326 IAC 3-5 and/or 40 CFR Part 75.~~
- (a) **The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment for SO₂, NO_x and CO₂ emissions.**
- (b) **All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR Parts 60, 75, and 98 as applicable, or any other performance specification, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.**
- (c) **In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.**
- (d) **Whenever a continuous emission monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:**
- (1) **If the CEMS is required for monitoring NO_x or SO₂ emissions pursuant to 40 CFR 75 (Title IV Acid Rain program) the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D – Missing Data Substitution Procedures.**
- (2) **If the CEMS is not used to monitor NO_x or SO₂ emissions pursuant to 40**

CFR 75, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.

- (e) **Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 40 CFR 60.**

Modification No. 8: Language changes and title changes in Section D.1.8 occurred as a result of changes to the requirements for continuous emissions monitoring for boilers identified as Unit 1 and Unit 2; the CEMS will be replacing COM.

D.1.8 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5] [326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 1 and Unit 2 scrubbed stacks to the atmosphere and record the output of the system as specified in paragraphs (a) through (d):

- (a) **The PM CEMS shall be installed, certified, operated, and maintained pursuant to 40 CFR Part 60, Appendix B, Performance Specification #11.**
- (b) **Compliance with the applicable particulate emission limitation in Condition D.1.1 shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data.**
- ~~(c) **All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 40 CFR 60.46.**~~
- (c) **Whenever this PM CEMS is malfunctioning or down for repair or adjustments for 24 hours or more, and a backup CEMS is not brought on-line, the following shall be used to provide information related to particulate emissions:**
- (1) **The ability of the FGD to control particulate matter emissions shall be monitored once per day when Unit 1 and Unit 2 are in operation by measuring and recording the following:**
- (a) **Number of recycle pumps in service; and**
- (b) **Absorber pH.**

Modification No. 9: The language in Section D.1.9 has been modified as a result of this permit modification. Paragraph Section numbers have been renumbered in Section D.1 as a result of this permit modification. The CEMS will be replacing COM.

D.1.98 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

This provision, D.1.9, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Modification No. 10: Paragraph Section numbers have been renumbered in Section D.1 as a result of this permit modification. The CEMS will be replacing COM.

D.1.109 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Modification No. 11: Paragraph Section numbers have been renumbered in Section D.1 as a result of this permit modification. The CEMS will be replacing COM. Also, a clarification was made between the Attachment A of the Commissioner Order, and the Extension of Time Request, which is included as Attachment A to this permit.

D.1.1140 ORDER of the Commissioner of the Indiana Department of Environmental Management

1.

- a. The date on-site construction for the installation of the emission control equipment identified in Attachment A **(of the Commissioner Order)** for Petersburg Unit 2 is initiated, and
- b. The date on-site construction for the installation of the emission control equipment identified in Attachment A **(of the Commissioner Order)** for Petersburg Unit 2 is completed.

Modification No. 12: The language in Section D.1.12 has been modified as a result of this permit modification. Paragraph Section numbers have been renumbered in Section D.1 as a result of this permit modification. The CEMS will be replacing COM.

D.1.1244 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]

This provision, D.1.12, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Modification No. 13: The language in Section D.1.13 has been modified as a result of this permit modification. Paragraph Section numbers have been renumbered in Section D.1 as a result of this permit modification. The CEMS will be replacing COM.

D.1.1342 Opacity Readings - Response Steps [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

This provision, D.1.13, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

Modification No. 14: Paragraph Section numbers have been renumbered in Section D.1 as a result of this permit modification.

D.1.1443 SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Modification No. 15: The language in Section D.1.15 has been modified as a result of this permit modification. Paragraph Section numbers have been renumbered in Section D.1 as a result of this permit modification. The CEMS will be replacing COMS.

D.1.1544 Record Keeping Requirements

- (a) To document **the** compliance **status** with Section C - Opacity, and Conditions D.1.1, D.1.2, D.1.1140 and D.1.1244, the Permittee shall maintain records in accordance with (1) through (4) below. **This provision, D.1.15(a), shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emisisions pursuant to this permit.** Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity, Condition D.1.1 and Condition D.1.2:
 - (1) Data and results from the most recent stack test **until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit.**
 - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6 **until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit.**
 - (3) The results of all Method 9 visible emission readings taken during any periods of

COMS downtime when a scrubber is not in service **until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit.**

- (4) **PM, HCl and Hg CEMS data after the PM, HCl and Hg CEMS is installed, certified and operating to measure PM, HCl and Hg emissions pursuant to this permit; and**
- (5) All ESP parametric monitoring readings.
- (b) To document **the** compliance **status** with Conditions D.1.3, D.1.7, D.1.109, and D.1.1342, the Permittee shall maintain records in accordance with (1) through (45) below. Records shall be complete and sufficient to establish compliance with the SO₂ limits as required in Conditions D.1.3 and D.1.7.
 - (1) *****
 - (4) The substitute data used for the missing data periods if data substitution pursuant to 40 CFR Part 75 Subpart D is used to provide data for the SO₂ CEMS downtime, in accordance with Condition D.1.1342.
- (c) To document **the** compliance **status** with Condition D.1.7, the Permittee shall maintain records of all NO_x continuous emissions monitoring data pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NO_x limits as required in 40 CFR Part 75.
- (d) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~
Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

Modification No. 16: Paragraph Section numbers have been renumbered in Section D.1 as a result of this permit modification.

D.1.1645 Reporting Requirements

Modification No. 17: Sections D.2.1 and D.2.2, have been relocated to Section E.1 and renumbered. Paragraph Section numbers have been renumbered in Section D.2 as a result of this permit modification. The language in Section D.2 has been modified as a result of this permit modification. Section C.13 was retitled as 'Reserved', and its contents and CEMS monitoring language were modified and moved to Section D.2.8 as a result of the replacement of COM with CEMS. The CEMS will be replacing COM. Also, in Section D.2.12, a clarification was made between the Attachment A of the Commissioner Order, and the Extension of Time Request, which is included as Attachment A to this permit. The Emissions Unit Description Table in D.2 has been modified as a result of this permit modification.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 3 and 4

- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, **and a baghouse, incorporated into the permit in 2015, activated carbon injection (ACI), incorporated into the permit in 2015,** selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. ~~Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, **activated carbon injection (ACI), incorporated into the permit in 2015**, and low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1. Unit 4 has ~~continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Unit 3 and Unit 4 except when otherwise specified in 40 CFR Part 60, Subpart D.

D.2.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR Part 60, Subpart D]

Pursuant to 326 IAC 12 and 40 CFR Part 60, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971), emissions from Unit 3 and Unit 4 shall each not exceed the following:

(a) For particulate matter:

- (1) One-tenth (0.10) pound PM per million Btu (MMBtu) heat input derived from fossil fuel. [40 CFR 60.42(a)(1)]
- (2) Twenty percent (20%) opacity except for one six-minute period per hour of not more than twenty-seven percent (27%) opacity. [40 CFR 60.42(a)(2)] Pursuant to 40 CFR 60.11(c), this opacity standard is not applicable during periods of startup, shutdown, or malfunction.

(b) For sulfur dioxide:

- (1) Eight tenths (0.80) pound SO₂ per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.43(a)(1)]
- (2) One and two-tenths (1.2) pound SO₂ per million Btu (MMBtu) heat input derived from solid fossil fuel. [40 CFR 60.43(a)(2)]
- (3) When combusting different fossil fuels simultaneously, the applicable SO₂ limit shall be determined using the formula in 40 CFR 60.43(b).

(c) For nitrogen oxides:

- (1) Three-tenths (0.30) pound NO_x per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.44(a)(2)]
- (2) Seven-tenths (0.70) pound NO_x per million Btu (MMBtu) heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing twenty-five percent (25%), by weight, or more of coal refuse). [40 CFR 60.44(a)(3)]
- (3) When combusting different fossil fuels simultaneously, the applicable NO_x limit shall be determined using the formula in 40 CFR 60.44(b).

D.2.13 Prevention of Significant Deterioration (PSD) BACT [326 IAC 2-2-3]

D.2.24 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

(a) *****

- (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the **ESP PM control device** reaches two hundred and fifty (250) degrees Fahrenheit at the inlet of the electrostatic precipitator, whichever occurs first.

For Unit 3, compliance with the opacity limit is determined by adding the Unit 3 Scrubbed and Unit 3 Bypass stacks' opacity exceedances during the startup period. For Unit 4, compliance with the opacity limit is determined by adding the Unit 4 Scrubbed and Unit 4 Bypass stacks' opacity exceedances during the startup period.

- (c) **This provision, D.1.2, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.**

D.2.35 Sulfur Dioxide (SO₂) Emission Limitations [326 IAC 7-1.1]

D.2.46 Particulate Control [40 CFR 64]

Except as otherwise specified in this permit, in order to comply with Condition D.2.13(b), the ~~electrostatic precipitators (ESPs)~~ for particulate control **devices (baghouse or electrostatic precipitator)** shall be in operation and control emissions from Units 3 and 4 at all times that the respective facilities are in operation.

D.2.57 Sulfur Dioxide Control

- (a) In order to comply with Condition D.2.35, the FGD scrubber for SO₂ control shall be in operation and control emissions from Unit 3 at all times that the respective facility is in operation, except when compliance is determined through the use of low sulfur coal as allowed by 40 CFR Part 60, Subpart D.
- (b) In order to comply with Conditions D.2.13(a) and D.2.35, the FGD scrubber for SO₂ control shall be in operation and control emissions from Unit 4 at all times that the facility is in operation, except where compliance is achieved by use of low sulfur coal as allowed by 40 CFR 60, Subpart D.

D.2.68 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

This provision, D.2.6, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

- (a) In order to demonstrate the compliance status with Condition D.2.13(b), the Permittee shall perform PM testing on Unit 3 and Unit 4. These tests shall be repeated at least once every two (2) calendar years following valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing utilizing methods approved by the Commissioner.

D.2.79 Fuel Sampling and Analysis

In order to demonstrate compliance with Condition D.2.13(a), when the SO₂ continuous emissions monitor is down and low sulfur coal is used to control SO₂, the Permittee shall conduct coal sampling and analysis required by 40 CFR 60, Subpart D.

D.2.84 Continuous Emission Monitoring System (CEMS) for SO₂, NO_x, and CO₂ [326 IAC 3-5][40 CFR Part 75]

- ~~(a) Pursuant to 326 IAC 3-5-1 and 40 CFR Part 75, the Permittee must calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring~~

~~SO₂, NO_x, and CO₂ emissions from Unit 3. Each CEMS required by this permit must meet all applicable performance specifications of 326 IAC 3-5-2 and 40 CFR Part 75. The data from the respective CEMS will be used to determine compliance with Conditions D.2.5 and D.2.12.~~

- ~~(b) Pursuant to 326 IAC 3-5-1 and 40 CFR Part 75, the Permittee must calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring SO₂, NO_x, and CO₂ emissions from Unit 4. Each CEMS required by this permit must meet all applicable performance specifications of 326 IAC 3-5-2 and 40 CFR Part 75. The data from the respective CEMS will be used to determine compliance with Conditions D.2.3, D.2.5 and D.2.12.~~
- ~~(c) The CEMS required by this permit must operate and record data during all periods of operation of the affected facilities including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.~~
- ~~(d) All CEMS required by this permit are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.~~
- ~~(e) Excess SO₂ emissions for affected facilities are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under 40 CFR 60.43. Three hour block averaging will satisfy this requirement.~~
- ~~(f) Excess NO_x emissions for affected facilities using a continuous monitoring system for measuring nitrogen oxides are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards under 40 CFR 60.44. Three hour block averaging will satisfy this requirement.~~
- ~~(g) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a CEMS pursuant to 326 IAC 3-5 and 40 CFR Part 75.~~
- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment for SO₂, NO_x and CO₂ emissions.**
- (b) All continuous emission monitoring systems shall meet all applicable performance specifications of 40 CFR Parts 60, 75, and 98 as applicable.**
- (c) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.**
- (d) Whenever a continuous emission monitor is malfunctioning or will be down for maintenance or repairs, the following shall be used as an alternative to continuous data collection:**
 - (1) If the CEMS is required for monitoring NO_x or SO₂ emissions pursuant to 40 CFR 75 (Title IV Acid Rain program), the Permittee shall comply with the relevant requirements of 40 CFR 75 Subpart D – Missing Data Substitution Procedures.**
 - (2) If the CEMS is not used to monitor NO_x or SO₂ emissions pursuant to 40 CFR 75, then supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D of this permit until such time as the emission monitor system is back in operation.**

- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, 40 CFR 60.

D.2.9 Particulate Matter (PM), HCl and Hg Continuous Emission Monitoring System (CEMS) [326 IAC 3-5][326 IAC 2-7-5(3)(A)(iii)]

The Permittee shall install, certify, maintain, and operate a CEMS measuring PM, HCl and Hg emissions discharged from Unit 3 and Unit 4 stacks to the atmosphere and record the output of the system as specified in paragraphs (a) through (d):

- (a) The PM CEMS shall be installed, certified, operated, and maintained pursuant to 40 CFR Part 60, Appendix B, Performance Specification #11.
- (b) Compliance with the applicable particulate emission limitation in Condition D.2.1 shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data.
- ~~(c) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 40 CFR 60.46.~~
- (c) Whenever this PM CEMS is malfunctioning or down for repair or adjustments for 24 hours or more, and a backup CEMS is not brought on-line, the following shall be used to provide information related to particulate emissions:
- (1) The ability of the FGD to control particulate matter emissions shall be monitored once per day when Unit 3 and Unit 4 are in operation by measuring and recording the following:
- (a) Number of recycle pumps in service; and
- (b) Absorber pH.

D.2.1044 Continuous Opacity Monitoring [326 IAC 3-5] [40 CFR Part 75]

This provision, D.2.10, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

D.2.1142 Sulfur Dioxide Emissions [326 IAC 3] [326 IAC 7-2] [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-2-1(a) and (c), the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed the applicable limits in Condition D.2.35. Compliance with these limits shall be determined using SO₂ CEMS data and demonstrated using a thirty (30) day rolling weighted average.

D.2.1243 ORDER of the Commissioner of the Indiana Department of Environmental Management

1. *****

- a. The date on-site construction for the installation of the emission control equipment identified in Attachment A **(of the Commissioner Order)** for Petersburg Unit 3 and 4 are initiated, and
- b. The date on-site construction for the installation of the emission control equipment identified in Attachment A **(of the Commissioner Order)** for Petersburg Unit 3 and 4 are completed.

D.2.1344 Electrostatic Precipitator (ESP) Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

This provision, D.2.13, shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emissions pursuant to this permit.

D.2.1415 **SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]**

(a) *********

- (2) Whenever the SO₂ continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for twenty-four (24) hours or more, and a backup CEMS cannot be brought on-line, the Permittee shall comply with the requirements of 40 CFR 75 Subpart D to demonstrate compliance with Condition D.2.13(a) until the primary CEMS or a backup CEMS is brought online.

D.2.1516 **Record Keeping Requirements**

- (a) To document **the compliance status** with Section C - Opacity and Conditions D.2.13, D.2.24, D.2.910, and D.2.1243, the Permittee shall maintain records in accordance with (1) through (54) below. **This provision, D.1.15(a), shall no longer apply after PM CEMS is installed, certified, and operating to measure PM emisisions pursuant to this permit.** Records shall be complete and sufficient to establish compliance with the limits established in Section C - Opacity and in Conditions D.2.13 and D.2.24:
- (1) Data and results from the most recent stack test **until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit;**
- (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5-6 **until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit;**
- (3) The results of all Method 9 visible emission readings taken during any periods of COMS downtime when the scrubber is not in service **until the PM CEMS is installed, certified and operating to measure PM emissions pursuant to this permit; and**
- (4) **PM, HCl and Hg CEMS data after the PM, HCl and Hg CEMS is installed, certified and operating to measure PM, HCl and Hg emissions pursuant to this permit; and**
- (5) All ESP parametric monitoring readings.
- (b) To document **the compliance status** with Conditions D.2.13, D.2.35, D.2.840, D.2.1144, and D.2.1413, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the SO₂ limits as required in Conditions D.2.13 and D.2.35.
- (1) All SO₂ continuous emissions monitoring data, pursuant to 326 IAC 3-5-6.
- (2) All scrubber parametric monitoring readings taken in accordance with Condition D.2.544.
- (3) Calculated fuel usage during each SO₂ CEMS downtime for Unit(s) affected by CEMS downtime lasting 24 hours or more.
- (4) The substitute data used for the missing data periods if data substitution pursuant to 40 CFR Part 75 Subpart D is used to provide data for the SO₂ CEMS downtime, in accordance with Condition D.2.14.
- (c) To document **the compliance status** with Conditions D.2.13, and D.2.840, the Permittee shall maintain records of all NO_x continuous emissions monitoring data, pursuant to 326 IAC 3-5-6. Records shall be complete and sufficient to establish compliance with the NO_x limits as required in Condition D.2.13.

- (d) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.~~ **Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.**

D.2.1617 Reporting Requirements

- (a) A quarterly report of opacity exceedances and a quarterly summary of the information to document compliance with Condition D.2.57, **D.2.8, and D.2.9**, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(35).

Modification No. 18: A Section E.1 description box has been created for the Boiler Units 3 and 4 to describe the conditions of NSPS, Subpart D which is applicable. The Sections E.1.1 and E.1.2, were formerly located in Section D.2, and labeled as D.2.1 and D.2.2. These two sections were moved to Section E because New Source Performance Standards (NSPS) are described in Section E, not Section D. Only the descriptions of Boiler Units 3 and 4 are different. The language in E.1.1 and E.1.2 is the same language that was present when these sections were labeled as D.2.1 and D.2.2. Section E.1.3, was added which notes that IDEM is approving IPL's October 14, 2014 petition for approval of Alternate Compliance.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Boilers 3 and 4

- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, **and a baghouse, incorporated into the permit in 2015, activated carbon injection (ACI), incorporated into the permit in 2015,** selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. ~~Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, **activated carbon injection (ACI), incorporated into the permit in 2015,** and low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1. ~~Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

E.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to Unit 3 and Unit 4 except when otherwise specified in 40 CFR Part 60, Subpart D.

E.1.2 New Source Performance Standard (NSPS) [326 IAC 12] [40 CFR Part 60, Subpart D]

Pursuant to 326 IAC 12 and 40 CFR Part 60, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971), emissions from Unit 3 and Unit 4 shall each not exceed the following:

- (a) For particulate matter **prior to PM CEMS installation, certification, and operation to measure PM emissions pursuant to this permit:**
- (1) *****
- (2) *****
- (b) **Pursuant to 40 CFR 60.42D(c), for particulate matter after PM CEMS installation, certification, and operation to measure PM emissions pursuant to this permit:**
- (1) **0.03 pound PM per million Btu (MMBtu) heat input derived from fossil fuel. [40 CFR 60.42Da(a)]**
- ~~(b)~~(c) For sulfur dioxide:
- (1) Eight-tenths (0.80) pound SO₂ per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.43(a)(1)]
- (2) One and two-tenths (1.2) pound SO₂ per million Btu (MMBtu) heat input derived from solid fossil fuel. [40 CFR 60.43(a)(2)]
- (3) When combusting different fossil fuels simultaneously, the applicable SO₂ limit shall be determined using the formula in 40 CFR 60.43(b).
- ~~(c)~~(d) For nitrogen oxides:
- (1) Three-tenths (0.30) pound NO_x per million Btu (MMBtu) heat input derived from liquid fossil fuel. [40 CFR 60.44(a)(2)]
- (2) Seven-tenths (0.70) pound NO_x per million Btu (MMBtu) heat input derived from solid fossil fuel (except lignite or a solid fossil fuel containing twenty-five percent (25%), by weight, or more of coal refuse). [40 CFR 60.44(a)(3)]
- (3) When combusting different fossil fuels simultaneously, the applicable NO_x limit shall be determined using the formula in 40 CFR 60.44(b).

Modification No. 19: A Section E.2 description box has been created for the Boiler Units 1, 2, 3, and 4 to describe the general provisions of NESHAP, Subpart UUUUU which is applicable.

SECTION E.2 EMISSION UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(145)]

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, **activated carbon injection (ACI) incorporated into the permit in 2015**, and low NO_x burner (installed in 1995) for NO_x reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). ~~Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂), and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses **a baghouse incorporated into the permit in 2015**, ~~an electrostatic precipitator~~, FGD scrubber (installed in 1996), **activated carbon injection (ACI), incorporated into the permit in 2015**, and selective catalytic reduction (installed in 2004) as control, and low NO_x burner for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). ~~Unit 2 has continuous emissions monitors (CEMs) for~~

~~nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, **and a baghouse, incorporated into the permit in 2015, activated carbon injection (ACI), incorporated into the permit in 2015,** selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. ~~Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, **activated carbon injection (ACI), incorporated into the permit in 2015,** and low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1. ~~Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR 63]

E.2.1 General Provisions Relating to NESHAP [326 IAC 20-82][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to the Boilers 1, 2, 3, and 4.

E.2.2 NESHAP Subpart UUUUU Requirements [326 IAC 20-82][40 CFR Part 63, Subpart UUUUU]

The Permittee shall comply with all applicable provisions of the "National Emission Standards for Hazardous Air Pollutants" as found in 40 CFR Subpart A, "General Provisions" and 40 CFR 63, Subpart UUUUU, "National Emission Standards for Hazardous Air Pollutants from Coal-fired Electric Utility Steam Generating Units" for operation of steam generating units. [40 CFR 63, Subpart A and UUUUU]

The four (4) Boiler Units 1, 2, 3, and 4, are subject to the following portions of Subpart UUUUU:

- (1) 40 CFR 63.9980
- (2) 40 CFR 63.9981
- (3) 40 CFR 63.9982(a)(1), (d)
- (4) 40 CFR 63.9984(b), (c), (f)
- (5) 40 CFR 63.9990(a)(1)
- (6) 40 CFR 63.9991(a)(1), (b)
- (7) 40 CFR 63.10000(a), (b), (c)(1)(i)(A), (c)(1)(iv)(B), (c)(1)(v), (c)(1)(vi), (d)(1), (d)(2), (e)
- (8) 40 CFR 63.10001
- (9) 40 CFR 63.10005(a)(2)(i), (b)(2), (b)(3), (b)(4), (d)(1), (d)(3), (e), (f), (j), (k)
- (10) 40 CFR 63.10006(i), (j)
- (11) 40 CFR 63.10007(a)(1), (b), (e)(2)(ii), (e)(2)(v), (f)
- (12) 40 CFR 63.10009
- (13) 40 CFR 63.10010(a)(1), (a)(4), (b), (d), (e), (g), (i)
- (14) 40 CFR 63.10011(a), (c), (f), (g)
- (15) 40 CFR 63.10020
- (16) 40 CFR 63.10021(a), (b), (e), (f), (g), (h), (i)
- (17) 40 CFR 63.10022(a)(1), (b)
- (18) 40 CFR 63.10030(a), (b), (d), (e)
- (19) 40 CFR 63.10031
- (20) 40 CFR 63.10032(a), (b), (c), (d)(1), (e), (f), (g), (h), (i)
- (21) 40 CFR 63.10033

- (22) 40 CFR 63.10040
- (23) 40 CFR 63.10041
- (24) 40 CFR 63.10042
- (25) 40 CFR 63, Subpart UUUUU, Table 2(1)
- (26) 40 CFR 63, Subpart UUUUU, Table 3(1), (3), (4)
- (27) 40 CFR 63, Subpart UUUUU, Table 5(1), (3), (4)
- (28) 40 CFR 63, Subpart UUUUU, Table 7(1), (5), (6), (7)
- (29) 40 CFR 63, Subpart UUUUU, Table 8
- (30) 40 CFR 63, Subpart UUUUU, Table 9

Modification No. 20: The boiler unit descriptions in the Title IV Section have been modified. The Title IV Section description box has been renamed Section E.4 as a result of this permit modification. Some rule citation numbers have been updated and the sub-sections have been renumbered. The CEMS will be replacing COM.

SECTION E.43

TITLE IV CONDITIONS

ORIS Code: 994

Facility Description [326 IAC 2-7-5(145)]

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, **activated carbon injection (ACI) incorporated into the permit in 2015**, and low NO_x burner (installed in 1995) for NO_x reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). ~~Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses **a baghouse incorporated into the permit in 2015**, ~~an electrostatic precipitator~~, FGD scrubber (installed in 1996), **activated carbon injection (ACI) incorporated into the permit in 2015**, and selective catalytic reduction (installed in 2004) as control, and low NO_x burner for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). ~~Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, **and a baghouse, incorporated into the permit in 2015, activated carbon injection (ACI), incorporated into the permit in 2015**, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. ~~Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, **activated carbon injection (ACI), incorporated into the permit in 2015**, and low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1. ~~Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

Acid Rain Program

E.4.13.4 Acid Rain Permit [326 IAC 2-7-5(1)(C)] [326 IAC 21] [40 CFR 72 through 40 CFR 78]

Pursuant to 326 IAC 21 (Acid Deposition Control), the Permittee shall comply with all provisions of the Acid Rain permit issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78. The Acid Rain permit for this source is attached to this permit as Appendix C, and is incorporated by reference.

E.4.23-2 Title IV Emissions Allowances [326 IAC 2-7-5(4)] [326 IAC 21]

Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations:

Modification No. 21: The boiler unit descriptions in the Section G description box have been modified as a result of this permit modification. The CEMS will be replacing COM.

SECTION G Clean Air Interstate Rule (CAIR) Nitrogen Oxides Annual, Sulfur Dioxide, and Nitrogen Oxides Ozone Season Trading Programs – CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

ORIS Code: 994

CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)

- (a) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 1, constructed prior to 1967, with a design capacity of 2200 MMBtu per hour. Unit 1 uses an electrostatic precipitator and FGD scrubber (installed in 1996) as control, **activated carbon injection (ACI) incorporated into the permit in 2015**, and low NO_x burner (installed in 1995) for NO_x reduction, and exhausts to stack 1-1(s) or bypass stack 1-1(b). ~~Unit 1 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (b) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 2, constructed prior to 1969, with a design capacity of 4144 MMBtu per hour. Unit 2 uses **a baghouse incorporated into the permit in 2015**, ~~an electrostatic precipitator~~, FGD scrubber (installed in 1996), **activated carbon injection (ACI) incorporated into the permit in 2015**, and selective catalytic reduction (installed in 2004) as control, and low NO_x burner for NO_x reduction, and exhausts to stack 2-1(s) or bypass stack 2-1(b). ~~Unit 2 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (c) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 3, constructed prior to 1977, with a design capacity of 5540 MMBtu per hour. Unit 3 uses an electrostatic precipitator, **and a baghouse, incorporated into the permit in 2015, activated carbon injection (ACI), incorporated into the permit in 2015**, selective catalytic reduction (installed in 2004) and an FGD scrubber as control, and exhausts to stack 3-1. ~~Unit 3 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x), sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~
- (d) One (1) coal/No. 2 fuel oil fired boiler, identified as Unit 4, on which construction began in 1978 and which began operation in 1986, with a design capacity of 5550 MMBtu per hour. Unit 4 uses an electrostatic precipitator and FGD scrubber as control, **activated carbon injection (ACI), incorporated into the permit in 2015**, and low NO_x burner (installed in 2001) for NO_x reduction, and exhausts to stack 4-1. ~~Unit 4 has continuous emissions monitors (CEMs) for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) and carbon dioxide (CO₂) and a continuous opacity monitor (COM).~~

Additional Changes

IDEM, OAQ made additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

Modification No. 22: Permit model changes to Section A.1 have occurred since permit renewal was issued.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(~~145~~)][326 IAC 2-7-1(22)]

County Location: Pike (**Washington Township**)
Source Location Status: Attainment for PM_{2.5} standard
Non-attainment for SO₂ in Washington Township

Modification No. 23: Permit model changes to Section A.2 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

A.2 Emission Units and Pollution Control Equipment Summary
[326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(~~145~~)]

Modification No. 24: Permit model changes to Section A.3 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(~~145~~)]

Modification No. 25: Permit model changes to Section B.8 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) *****

(1) It contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~), and

(b) *****

(c) A "responsible official" is defined at 326 IAC 2-7-1(~~3534~~).

Modification No. 26: Permit model changes to Section B.9 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(5) *****

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 27: Permit model changes to Section B.10 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(~~1243~~)] [326 IAC 1-6-3]

(a) *****

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance

causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**3534**).

The Permittee shall implement the PMPs.

Modification No. 28: Permit model changes to Section B.11 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) *****

(b) *****

(4) *****

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-0178 (~~ask for Compliance Section~~)(**ask for Office
of Air Quality, Compliance and Enforcement Branch**)
Facsimile Number: 317-233-6865

(5) *****

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(**3534**).

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(**89**) be revised in response to an emergency.

~~(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.~~

Modification No. 29: Permit model changes to Section B.13 have occurred since permit renewal was issued. Language changes occurred for clarification.

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) *****

(b) **Provided that all terms and conditions are accurately reflected in this permit, all**~~All~~ previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

Modification No. 30: Permit model changes to Section B.16 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause.

The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 31: Permit model changes to Section B.17 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(~~4042~~). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 32: Permit model changes to Section B.18 have occurred since permit renewal was issued. Some rule citation numbers have been updated. Language changes occurred for clarification.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12] [40 CFR 72]

- (a) *****

- (c) *****
Any such application **does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official"** ~~shall be certified by the "responsible official"~~ as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 33: Permit model changes to Section B.20 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b)(1), ~~or (c), or (e)~~ without a prior permit revision, if each of the following conditions is met:
- (1) *****

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1), ~~or (c)(1), or (e)~~. The Permittee shall make such records available, upon reasonable request, for public review.
- Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), ~~or (c)(1), and (e)(2)~~.
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(~~3637~~)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a

~~the~~ certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 34: Permit model changes to Section B.21 have occurred since permit renewal was issued.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2-~~and 326 IAC 2-7-10.5~~.

Modification No. 35: Permit model changes to Section B.23 have occurred since permit renewal was issued. Some rule citation numbers have been updated. Language changes occurred for clarification.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (b) ~~Any such application does require a~~ ~~The application which shall be submitted by the Permittee does require the~~ certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 36: Permit model changes to Section C.8 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (d) ~~*****~~
The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 37: Permit model changes to Section C.9 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

C.9 Performance Testing [326 IAC 3-6]

(a) *****

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 38: Permit model changes to Section C.11 have occurred since permit renewal was issued. IDEM is changing the Section C Compliance Monitoring Condition to clearly describe when new monitoring for new and existing units must begin. Also, two new rule citations were added to the title of Section C.11 to further define Compliance Monitoring Requirements. Language changes occurred for clarification.

C.11 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

- (a) **For new units:**

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance ~~or of initial start-up, whichever is later~~, to begin such monitoring. If due to circumstances beyond Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance ~~or the date of initial startup, whichever is later~~, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(3534).

(c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

~~Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.~~

Modification No. 39: Permit model changes to Section C.15 have occurred since permit renewal was issued. Language changes occurred for clarification.

C.15 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than

twenty percent (20%) of full scale. **The analog instrument shall be capable of measuring values outside of the normal range.**

Modification No. 40: Permit model changes to Section C.16 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

(b) *****

The ERP does require the certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 41: Permit model changes to Section C.18 have occurred since permit renewal was issued. Language additions occurred in Section C.18 to clarify responses to excursions or exceedances for units subject to CAM and units not subject to CAM.

C.18 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation, **not subject to CAM**, in this permit:

(b) *****

(1) *****

(2) recording that operations returned **or are returning** to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to **normal** or usual manner of operation.

(e) *****

(II)

(a) **CAM Response to excursions or exceedances.**

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- (2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.**
- (b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.**
- (c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.**
- (d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).**
- (e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.**
- (f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:**
 - (1) Failed to address the cause of the control device performance problems; or**
 - (2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.**
- (g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.**
- (h) CAM recordkeeping requirements.**
 - (1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the**

Permittee's obligations with regard to the records required by this condition.

- (2) **Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.**

Modification No. 42: Permit model changes to Section C.19 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) *****

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 43: Permit model changes to Section C.20 have occurred since permit renewal was issued. Some rule citation numbers have been updated.

C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

(a) *****

The emission statement does require the certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~3534~~).

Modification No. 44: Permit model changes to Section C.21 have occurred since permit renewal was issued. Some rule citation numbers have been updated. Language changes occurred for clarification.

C.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]
[326 IAC 2-2][326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. **Support information includes the following, where applicable:**

(AA) **All calibration and maintenance records.**

(BB) **All original strip chart recordings for continuous monitoring instrumentation.**

(CC) **Copies of all reports required by the Part 70 Permit.**

Records of required monitoring information include the following, where applicable:

(AA) **The date, place, as defined in this permit, and time of sampling or measurements.**

(BB) **The dates analyses were performed.**

(CC) **The company or entity that performed the analyses.**

(DD) **The analytical techniques or methods used.**

(EE) The results of such analyses.

(FF) The operating conditions as existing at the time of sampling or measurement.

(b) *****

~~(c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:~~

~~(1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, document and maintain the following records:~~

~~(A) A description of the project.~~

~~(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.~~

~~(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:~~

~~(i) Baseline actual emissions;~~

~~(ii) Projected actual emissions;~~

~~(iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and~~

~~(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.~~

~~(d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:~~

(c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

- (1) **Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:**
 - (A) **A description of the project.**
 - (B) **Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.**
 - (C) **A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:**
 - (i) **Baseline actual emissions;**
 - (ii) **Projected actual emissions;**
 - (iii) **Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and**
 - (iv) **An explanation for why the amount was excluded, and any netting calculations, if applicable.**
- (d) **If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:**
 - (1) *****
 - (2) *****

Modification No. 45: Permit model changes to Section C.22 have occurred since permit renewal was issued. Some rule citation numbers have been updated. Language changes occurred for clarification.

C.22 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]
[326 IAC 2-3] [40 CFR 64][326 IAC 3-8]

-
- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph.** Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted no later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(354). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;**
- (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and**
- (3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.**

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (ooqq) and/or 326 IAC 2-3-1 (jjH)) ~~at an existing emissions unit other than Electric Utility Steam Generating Unit~~, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:**
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (wwxx) and/or 326 IAC 2-3-1 (ppeq), for that regulated NSR pollutant, and**

- (h) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.**
- (i) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.**
- (j) If the Permittee is required to comply with the record keeping provisions of (d) in Section C – General Record Keeping Requirements for a **any** "project" (as defined in 326 IAC 2-2-1 (qqoo) and/or 326 IAC 2-3-1 (Hjj)) at an existing **emissions unit**, ~~Electric Utility~~**

~~Steam Generating Unit, then for that project the Permittee shall:~~ **and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:**

- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (k) The report for project at an existing emissions *unit* shall be submitted no later than sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- ~~(1) Submit to IDEM, OAQ a copy of the information required by (c)(1) in Section C— General Record Keeping Requirements.~~
- ~~(2) Submit a report to IDEM, OAQ within sixty (60) days after the end of each year during which records are generated in accordance with (d)(1) and (2) in Section C— General Record Keeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.~~

(ii) *****

Modification No. 46: The value of N in the variables in the equation for particulate emission limits for sources of indirect heating (Pt) located in Section D.1.1 has been corrected, and therefore, the Pt value has been corrected for Unit 1 and Unit 2.

D.1.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-3]

- (a) Pursuant to 326 IAC 6-2-3(b), particulate emissions from Unit 1 shall not exceed ~~0.8~~ **0.38** pounds per MMBtu, **when exhausting through the main stack, and 0.37 pounds per MMBtu, when exhausting through the bypass stack and.**

Pursuant to 326 IAC 6-2-3(b), particulate emissions from Unit 2 shall not exceed

0.38 pounds per MMBtu, when exhausting through the main stack, and 0.37 pounds per MMBtu, when exhausting through the bypass stack.

- (b) Pursuant to 326 IAC 6-2-3(b), the particulate matter emissions from **Unit 1 and Unit 2** shall not exceed 0.46 lb per MMBtu when exhausting to the main stack and 0.44 lb per MMBtu when exhausting to the bypass stack. The pounds per million Btu limits were calculated using the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where C = 50 u/m3

Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)

Q = total source maximum operating capacity rating (Q = 6344 MMBtu/hr)

N = number of stacks (N = 42)

a = plume rise factor (a = 0.8)

h = stack height (h = 621 ft; h of bypass stack = 604.5 ft)

Modification No. 47: The language in Section D.1.2 for the opacity limits during startup and shut down of the boilers Unit 1 and Unit 2, was modified for clarification.

D.1.2 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 1 and 2:
- (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the PM control device reaches two hundred and fifty (250) degrees Fahrenheit at the **entrance to the control device** ~~inlet of the electrostatic precipitator~~, whichever occurs first.

Modification No. 48: The section reference of D.1.13, was corrected to D.1.14, in Section D.1.15(b) for the Record Keeping Requirements.

D.1.15 Record Keeping Requirements

- (a) *****
- (b) To document the compliance status with Conditions D.1.3, D.1.7, D.1.10, and ~~D.1.13~~ **D.1.14**, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to establish compliance with the SO₂ limits as required in Conditions D.1.3 and D.1.7.

Modification No. 49: The language in section D.2.7, was modified for clarification and now indicates when fuel sampling and analysis should be conducted.

D.2.7 Fuel Sampling and Analysis

In order to demonstrate compliance with Condition D.2.1(a), when the SO₂ continuous emissions monitor is down and **coal is fired in the unit** ~~low sulfur coal is used to control SO₂~~, the Permittee shall conduct coal sampling and analysis required by 40 CFR 60, Subpart D.

Modification No. 50: The language in Section D.2.2 for the opacity limits during startup and shut down of the boilers Unit 3 and Unit 4, was modified for clarification.

D.2.2 Startup, Shutdown and Other Opacity Limits [326 IAC 5-1-3]

- (a) Pursuant to 326 IAC 5-1-3(e) (Temporary Alternative Opacity Limitations), the following applies to Units 3 and 4:
- (1) When building a new fire in a boiler, opacity may exceed the applicable limitation established in 326 IAC 5-1-2 for a period not to exceed a total of four (4) hours (forty (40) six (6)-minute averaging periods) during the startup period, or until the flue gas temperature entering the PM control device reaches two hundred and fifty (250) degrees Fahrenheit at the **entrance to the control device inlet of the electrostatic precipitator**, whichever occurs first.

Modification No. 51: Section E.3 was added to the permit to be consistent with the other E Sections which note the applicability of rules for the National Emission Standards for Hazardous Air Pollutants (NESHAP), or the New Source Performance Standard (NSPS). Section D.8, is being moved to Section E.3 because the rules applicable to the emergency fire water pump, FP-1, by the National Emission Standards for Hazardous Air Pollutants (NESHAP), are noted and should be shown in Section E, rather than Section D. No specific rules have been changed, but the sub-section numbering have changed.

SECTION ~~D.8~~ E.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(14)]: Insignificant Activities

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (e) One (1) diesel emergency internal combustion engine used to power a fire water pump, installed in 1975, identified as FP-1, with a maximum heat input capacity of 0.483 MMBtu/hr and a rating of 250 brake horsepower (bhp).

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

~~E.3.1D.8.1~~ General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-82] [40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-82, apply to FP-1, except when otherwise specified in 40 CFR 63, Subpart ZZZZ.

~~E.3.2D.8.2~~ Stationary Reciprocating Internal Combustion Engines NESHAP [326 IAC 20-82] [40 CFR 63, Subpart ZZZZ]

Pursuant to 40 CFR 63 Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR 63 Subpart ZZZZ, which are incorporated as 326 IAC 20-82 for the FP-1, as specified as follows:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(1)(ii)
- (4) 40 CFR 63.6595(a)(1)
- (5) 40 CFR 63.6602
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6612
- (8) 40 CFR 63.6620
- (9) 40 CFR 63.6625(e),(f),(h),(i)
- (10) 40 CFR 63.6640(a),(b),(e),(f)
- (11) 40 CFR 63.6645(a)(5)

- (12) 40 CFR 63.6650(a),(b)(1)-(5),(c),(d),(e),(f)
- (13) 40 CFR 63.6655(a)(1),(2),(4),(b),(d),(e),(f)(1)
- (14) 40 CFR 63.6660
- (15) 40 CFR 63.6665
- (16) 40 CFR 63.6670
- (17) 40 CFR 63.6675
- (18) Table 2c(1), 6(9), 7(a) and 8.

Modification No. 52: Section D.8, is being moved to new Section E.3 because the rules applicable to the emergency fire water pump, FP-1, by the National Emission Standards for Hazardous Air Pollutants (NESHAP), are noted and should be shown in Section E, rather than Section D. Therefore, Section D.9 and its sub-sections are being renumbered and will become Section D.8 as a result of this change.

SECTION D.8~~D.9~~ EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Activated Carbon Injection Systems

D.8.19.1 PSD Minor Limits [326 IAC 2-2]

D.8.29.2 Particulate [326 IAC 6-3-2]

Compliance Determination Requirements

D.8.39.3 Particulate Control [326 IAC 2-7-6(6)]

In order to ensure compliance with the particulate matter emissions limits specified in Condition **D.8.19.4** silo bin vent filters shall in operation and controlling emissions whenever the equipment is in operation and venting to the control device.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.8.49.4 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.8.59.5 Record Keeping Requirements

To document the compliance status with Condition **D.8.49.4**- Visible Emission Notation, the Permittee shall maintain weekly records of the visible emission notations from Activated Carbon injection system identified as ACI-1, ACI-2, ACI-3, and ACI-4. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

Modification No. 53: Permit model changes to the Quarterly Deviation and compliance Monitoring Report have occurred since permit renewal was issued. Language changes occurred for clarification.

**COMPLIANCE DATA SECTION
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: IPL - Petersburg Generating Station
Source Address: 6925 N. State Road 57, Petersburg, Indiana 47567
Part 70 Permit No.: T 125-6565-00002

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting.** Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Conclusion and Recommendation

The operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification No. T125-34687-00002. The staff recommend to the Commissioner that this Part 70 Significant Permit Modification be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Daniel W Pell at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-8532 or toll free at 1-800-451-6027 extension 4-8532.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Jeffrey A Harter
IPL – Petersburg Generating Station
PO Box 436
Petersburg, IN 47567

DATE: June 18, 2015

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Significant Permit Modification
125-36687-00002

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Justin Barrett - IPL
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

June 18, 2015

TO: Pike Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: IPL – Petersburg Generating Station
Permit Number: 125-34687-00002

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	GHOTOPP 6/18/2015 Indianapolis Power and Light - Petersburg Generating Station 125-34687-00002 Final		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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2		Nonresponsive (Affected Party)										
3		Nonresponsive (Affected Party)										
4		Pike County Commissioners 801 Main Street Petersburg IN 47567 (Local Official)										
5		Petersburg City Council and Mayors Office 704 Main St, City Hall Petersburg IN 47567 (Local Official)										
6		Pike County Health Department 801 Main St, Courthouse Petersburg IN 47567-1298 (Health Department)										
7		Nonresponsive (Affected Party)										
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10		Pike Public Library 1104 Main Street Petersburg IN 47567 (Library)										
11		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 (Affected Party)										
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13		Nonresponsive (Affected Party)										
14		Justin Barrett IPL One Monument Circle Indianapolis IN 46204 (Source – addl contact)										
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